

13 The Pyrite Remediation Scheme

- 13.1** Pyrite is a common mineral that can be found in certain types of rock. The presence of pyrite in construction materials such as aggregates used as hard core under floors can lead to problems. When exposed to oxygen and moisture, pyrite may cause structural defects in buildings by causing the hardcore beneath ground floor slabs to swell and result in cracks to walls and floors. In mid-2007, it became apparent that a number of private housing developments were affected by damage caused by such reactive pyrite heave.
- 13.2** Homebond is a provider of structural defect guarantees/warranties for purchasers of new homes. The company carried out remediation of dwellings where, subject to the terms of its cover, it was satisfied that pyrite damage had occurred and there was resulting damage. The remediation works continued until mid-2011 when Homebond withdrew its guarantee for pyrite-damaged houses. This followed a court decision on a case that held the supplier of construction material liable for damage caused by pyrite rather than the developer.¹
- 13.3** In September 2011, in the wake of Homebond's decision, the Minister for the Environment, Community and Local Government (the Minister) announced the establishment of the Pyrite Panel (the Panel). The Panel produced a report in 2012 that set out the scale of the problem and made suggestions as to how it could be resolved. On foot of the Panel report, in December 2012, the Government approved a request from the Minister for the establishment of a Pyrite Resolution Board.
- 13.4** The Pyrite Resolution Board (the Board) was established on an administrative basis in February 2013. In tandem with the establishment of the Board, the Department of Housing, Local Government and Heritage (the Department) commenced work on the development of a general scheme for a pyrite remediation bill.²
- 13.5** In October 2013, the Minister received Government approval for
- the roll-out of a pyrite remediation scheme (the scheme) to be financed from Exchequer funds under the auspices of the Pyrite Resolution Board
 - initial funding of €10 million
 - drafting of a pyrite resolution bill.
- 13.6** The Pyrite Resolution Act came into effect on 10 January 2014. The Act provided for
- the establishment of the Pyrite Resolution Board on a statutory basis to determine the scope of the programme, oversee the implementation of the scheme and manage the application and appeals process, and
 - administration and implementation of the scheme by the Housing and Sustainable Communities Agency (the Housing Agency) who would assess and make recommendations to the Board on applications from homeowners for inclusion in the scheme.

¹ James Elliot Construction Ltd vs Irish Asphalt Ltd, 25 May 2011.

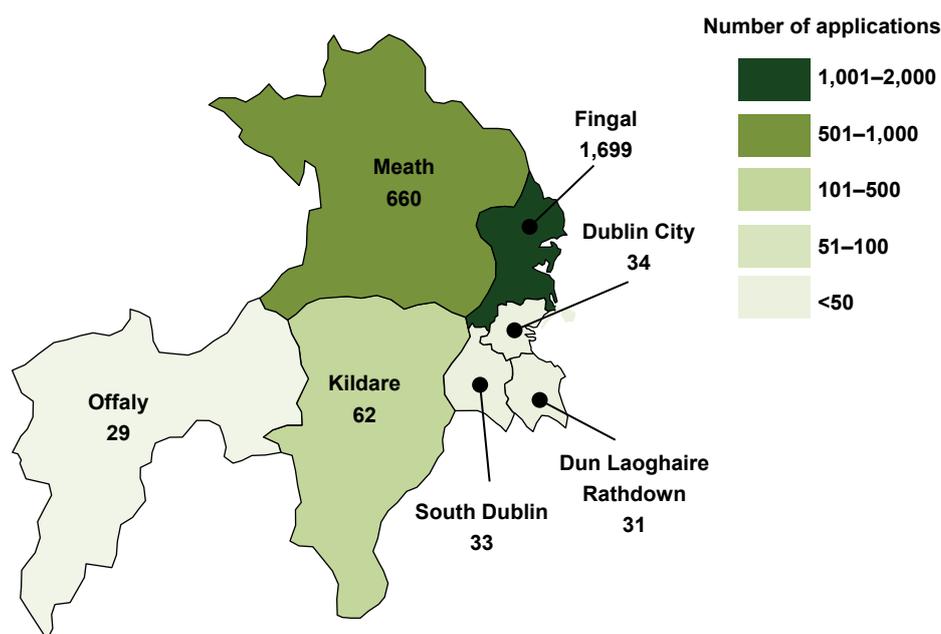
² Previously named the Department of Housing, Planning and Local Government.

- 13.7** The scheme commenced in February 2014. Its primary objective was to remediate dwellings that were significantly damaged by pyrite, at no additional cost to the homeowner. It is a scheme of 'last resort' for affected homeowners who have no other practical option to obtain redress, and is limited to dwellings with significant pyrite damage located in certain local authority areas.
- 13.8** This examination was carried out to assess the progress achieved to the end of 2019 in dealing with the problem of pyrite used in home building up to 2014 and to consider the cost of the scheme introduced to remedy the problem.

Scale of pyrite problem

- 13.9** In estimating the possible maximum exposure to the pyrite problem, the Panel determined that 10,300 dwellings in 74 estates may have reactive pyrite present in the hardcore and require remediation.¹ To the end of 2019, pyrite-related damaged dwellings across seven local authorities are included in the scheme. Dwellings located in two local authorities, Fingal and Meath, account for over 90% of the applications to the scheme (see Figure 13.1).

Figure 13.1 Applications submitted by local authority, end 2019



Source: Pyrite Resolution Board. Analysis by the Office of the Comptroller and Auditor General.

¹ In estimating the scale of the problem, a total of 12,250 ground floor dwellings was determined. At the time of reporting, the Panel identified approximately 1,950 dwellings that had either already been remediated or had made a claim with a guarantee provider.

Operation of the scheme

- 13.10** The scheme applies to classes of dwellings that are used or suitable for use by a person (or persons) as a place to reside such as houses, apartments, duplexes and maisonettes. To be eligible for the scheme certain criteria must be met (see Annex 13A).

Roles of the Pyrite Resolution Board and the Housing Agency

- 13.11** The Board is made up of a chairman and four members who meet monthly. Its primary function is to
- consider and determine applications for inclusion in the scheme
 - direct and oversee the implementation of the scheme and
 - manage the application and appeals process.
- 13.12** The Housing Agency is tasked with the
- administration and implementation of the scheme
 - remediation of approved dwellings as directed by the Board
 - provision of verification reports to the Board and
 - liaison with scheme participants.
- 13.13** The administration of the scheme operates over eight stages from submission of application to the closure of the case. Details on each stage are set out in Figure 13.2.
- 13.14** Each application requires a building condition assessment (BCA) certificate issued by an independent competent person engaged by the homeowner.¹ The BCA reports on whether the cause of damage to the property is pyrite related and is significant enough to warrant acceptance into the scheme. Each year, the Board carries out internal audits on a sample of BCAs to ensure that the dwellings have the requisite level of pyrite-related damage to satisfy the scheme conditions. By the end of 2019, the Board had carried out 666 BCA audits of which 655 (98%) were deemed satisfactory.
- 13.15** A panel of eight qualified contractors to carry out remediation and a panel of seven engineering consultants to specify and oversee the work were established in 2014. (These were subsequently reduced to five contractors and three consultants after a framework review in 2018). In total, six individual contracting companies and eight consultants have been involved in the remediation of the closed cases to the end of 2019.

¹ A competent person undertaking a BCA must have sufficient theoretical and practical training, experience and knowledge appropriate to the nature of the work undertaken.

Figure 13.2 Pyrite Remediation Scheme stages**Application and validation**

- The Board considers the validity of the application under the eligibility criteria based on the submitted building condition assessment (BCA).

Assessment, verification and recommendation

- The Housing Agency verifies that the damage to the dwelling is caused by pyrite. Based on the Housing Agency's recommendation, the Board makes a decision to include or exclude the dwelling in the scheme.

Remedial works plans

- A consultant engineer, appointed by the Housing Agency, prepares a remedial works plan.

Tendering and tender analysis

- The remedial works contract goes out for tender to a panel of qualified contractors. Tender responses are reviewed by the Housing Agency.

Decision to contract

- The Housing Agency reports to the Board on the tenders received for the remedial works contract and recommends a works contractor for the award of the contract. The contract is awarded by the Board.

Dwelling remediation

- The dwelling is remediated by a contractor, under the supervision of an engineer.

Retention period

- Defects resulting from the remediation works arising within a 12-month retention period will be repaired.

Application closure

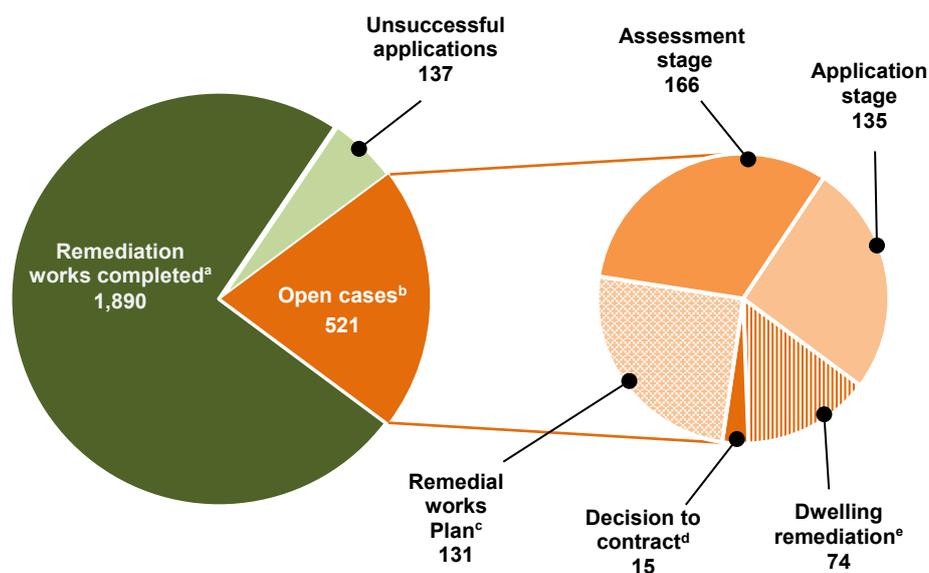
- The application is considered closed after the retention period or once the particular defects, if any, are repaired.

Scheme progress

13.16 To the end of 2019, a total of 2,548 valid applications were received, with 2,110 (83%) approved for inclusion in the scheme.¹ Of these, 137 (5.4%) were unsuccessful for reasons including not meeting the scheme eligibility criteria, or application withdrawn (see Figure 13.3).

13.17 By end 2019, remediation works have been completed on 1,890 properties (74% of valid applications) with the remaining 521 (20%) cases open.

Figure 13.3 Summary of applications received as at 31 December 2019



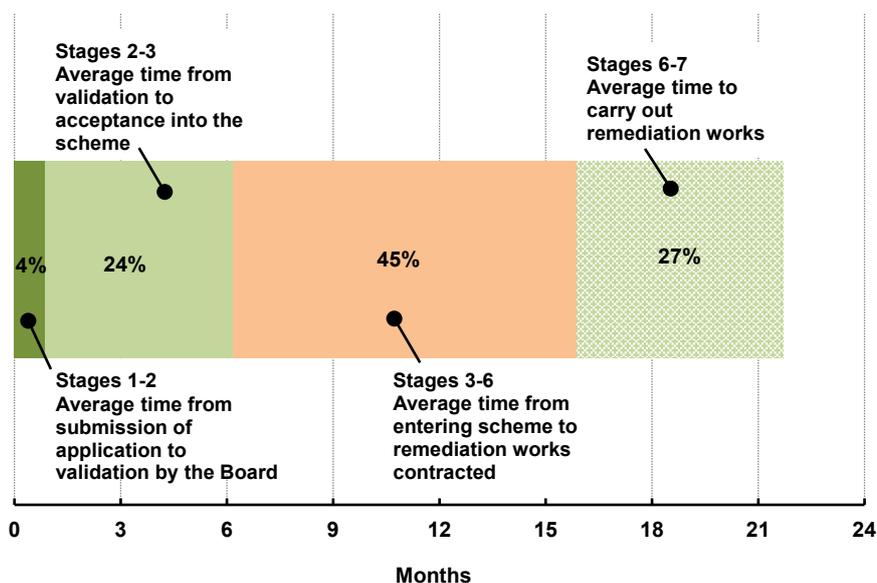
Source: Pyrite Resolution Board. Analysis by the Office of the Comptroller and Auditor General.

- Notes:
- a Of the remediation works completed cases, 639 applications are at retention stage of which 135 cases are over the 12-month period.
 - b Analysis of the open cases is conducted on data as at 9 March 2020.
 - c Applications at stage 3 with an average time lapse since application submitted of 311 days (11 cases from 2015, 1 from 2016 and 2 from 2017).
 - d Applications at stage 4 with an average time lapse since application submitted of 327 days (1 case from 2016 and 2 from 2017).
 - e Applications at stage 6 with an average time lapse since application submitted of 580 days (2 cases from 2014, 1 from 2016 and 12 from 2017).

¹ The Board received 2,592 applications in total but discounted 44 duplicate applications.

13.18 For the cases with remediation works completed, the process from submission of application to completion of works took on average just under 22 months. The 12-month retention period post-works brings the average time from submission of application to project closure to almost three years. Homeowners waited on average 15 months from acceptance onto the scheme until remediation works were completed. Figure 13.4 sets out the average timeline taken for applications to progress between the scheme stages.

Figure 13.4 Average time at each stage of the scheme: submission of application to completion of works



Source: Pyrite Resolution Board. Analysis by the Office of the Comptroller and Auditor General.

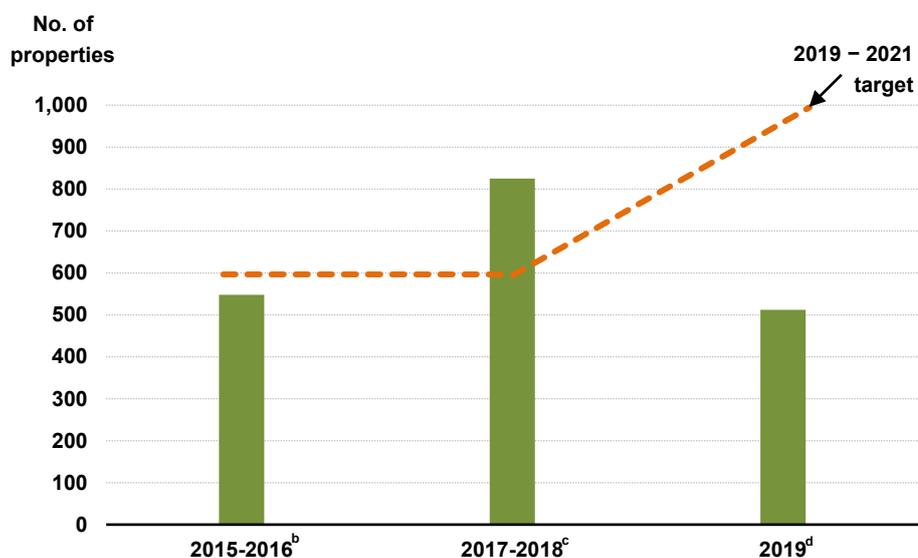
13.19 The Board does not set targets or have performance indicators in relation to the processing of claims. The number of days taken for an application to move from one stage to another fluctuates significantly. The reasons identified by the Board include

- incomplete applications
- longer time frames for processing of one-off and self-build dwellings than applications received from estates which satisfy the eligibility requirements
- grouping individual applications into projects in order to secure reasonable efficiencies
- longer time for dwelling remediation due to unexpected issues, for example addressing of structural defects.

Dwellings remediated

13.20 Up to the end of 2019, remediation works had been carried out on 1,890 dwellings.¹ The Board set two-year targets for the number of dwellings to be remediated over the period 2015 to 2018 and a three-year target for the period 2019 to 2021. The outturn has been up to or significantly ahead of the targets (see Figure 13.5). In 2019, work completed was 51% of the target for the three years 2019 to 2021.

¹ A total of 1,251 properties were fully remediated with the project closed and 639 properties were still in the retention period.

Figure 13.5 Properties remediated by year, 2015 – 2019^a

Source: Pyrite Resolution Board. Analysis by the Office of the Comptroller and Auditor General.

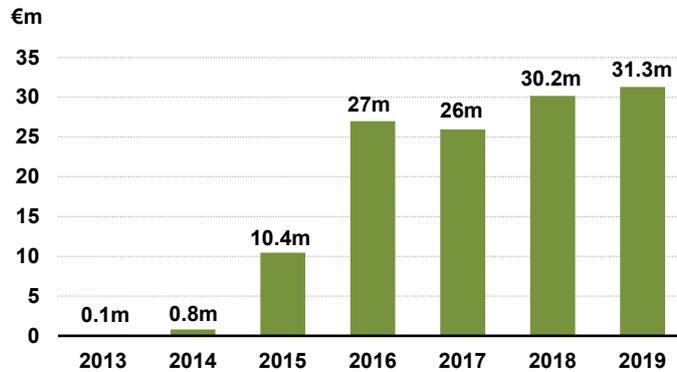
- Notes:
- a Five dwellings were remediated in 2014, the year the scheme commenced.
 - b 148 dwellings remediated in 2015 and 400 in 2016.
 - c 392 dwellings remediated in 2017 and 433 in 2018.
 - d 512 dwellings remediated in 2019. The target set is for a 3-year period (2019 – 2021).

Scheme expenditure

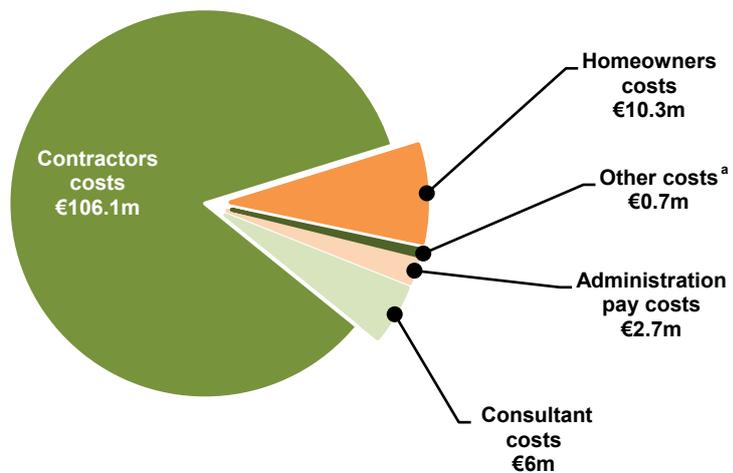
- 13.21** Based on the information available prior to the establishment of the scheme as reported by the Pyrite Panel, the scale of the potential pyrite problem (10,300 dwellings) and the projected average cost of remediation (€45,000) indicated that the scheme could cost over €460 million. Subsequently, proposals to fund the scheme communicated to Government, referred to estimates of up to 6,000 dwellings requiring remediation at an average cost of €50,000 (inclusive of ancillary expenses), suggesting a potential cost of €300 million.
- 13.22** Expenditure on the scheme increased rapidly (see Figure 13.6). By the end of 2015, the scheme had cost approximately €11 million. By the end of 2019, the total scheme expenditure was nearly €126 million.
- 13.23** Payments to contractors accounted for 84% of total costs, with homeowner expenses and consultant costs accounting for 8% and 5% respectively. Administration staff pay came to just over 2% of total scheme costs.
- 13.24** By the end of 2019, the all-in average cost per dwelling for remediation was around €65,000.

Figure 13.6 Pyrite Remediation Scheme costs, 2013 – 2019

Annual costs



Total costs breakdown



Source: Housing Agency audited financial statements, 2013 to 2018 and draft financial statements 2019. Analysis by the Office of the Comptroller and Auditor General.

Note: a Other costs include legal and professional (€503,000), ICT (€99,000) and other administration costs (€96,000).

1 The total cost to complete the programme was based on the estimated number of applications received and approved to the end of 2018, the estimated cost of remediation associated with each application and the estimated number of remediated dwellings to be completed each year.

Future projected costs

13.25 A preliminary indicative five-year projection, covering the period 2019 – 2023 was prepared by the Housing Agency and presented to the Board in 2018. The projection identifies a requirement for additional government funding of €84 million, allowing the remediation of an additional 1,248 dwellings covering the period 2020 to 2023 inclusive.¹ Projections of recoveries from third parties with a liability towards all or part of the costs was not considered when estimating future costs.

- 13.26** Based on the costs projected and the actual costs incurred to the end of 2019, the scheme will cost approximately €210 million up to the end of 2023 and will remediate approximately 3,140 dwellings.
- 13.27** The Department notes that the rate of applications are trending downwards and it considers it reasonable to expect this downward trend to continue. The Board indicated that under the current terms of the scheme, it would appear that the majority of the cases that would qualify have made applications. There is no 'sunset clause' or a closing date for applications in the Pyrite Resolution Act. The Department notes that the situation is being monitored and for the present there is sufficient and legitimate demand to continue the scheme.

Recovery of costs from third parties

- 13.28** Legislation provides that the Board may recover from any party with a liability and the capacity, all or part of the costs of remediating dwellings. Such liable parties are the relevant quarries, builders, developers, contractors and homeowners in receipt of compensation.¹ To the end of 2019, just over €1.79 million (1.4%) of the total scheme cost was recouped from third parties.

Recoupment from developers

- 13.29** The Board has stated that most of the builders/developers allegedly involved in development of homes affected by pyrite damage are in liquidation, dissolved, in receivership, have ceased trading or have no funds. The Board pointed out that while the Act enables it to pursue parties with a liability, it does not contain an obligation or instruction to pursue parties with a liability.
- 13.30** The Board initiated only one legal case against a developer during the life of the scheme, which resulted in a settlement of €2.5 million, signed on 12 May 2020. This represents 15% of the remediation costs incurred by the Board for this development.
- 13.31** Of the 68 identified liable builders/developers (94% of all applications), the Board recouped money from three companies with a liability without needing to prosecute them before the courts.²
- 13.32** The Board noted its preference for negotiation over legal proceedings because of the high costs associated with a court case and the insecurity of the outcomes. In addition, it noted legal difficulties it faces such as many cases being statute barred and that proof of negligence would be difficult to establish to ground an action in tort.

¹ Where a homeowner receives payment in respect of pyrite damage to his or her dwelling other than under the scheme and where the Board has commenced or completed remediation works to the dwelling concerned, the homeowner is required to refund the Board the cost of the remediation or the amount of the payment if that is the lesser amount.

² The Board indicated that of these 68 companies, 30 are dissolved, 11 are in receivership, nine are in liquidation, four ceased trading/went out of business, three had no funds and 11 are operating as normal.

Contributions from Homebond

- 13.33** Homebond was the provider of structural defect guarantees/warranties for an estimated 74% of the eligible scheme applications. The company signed an agreement with the Board in June 2014 to contribute towards the scheme costs. The agreement involved Homebond providing technical and project management services for the first 1,000 dwellings subject to a €2 million limit. If the €2 million limit was not reached for the first 1,000 units, the arrangement would be revisited.
- 13.34** The Board stated that both parties met at least eight times and following the remediation of 1,000 dwellings, Homebond agreed to continue with the services provided subject to the €2 million limit. To the end of 2019, Homebond has provided services and staff to the value of €1.76 million.

Costs in relation to non-pyrite related damage

- 13.35** During the course of pyrite remediation works, structural defects not related to pyrite damage were identified in some cases. A separate supplemental agreement between the Board and Homebond was signed in 2015, requiring Homebond to make an appropriate contribution towards the cost of such structural works. The agreement was that Homebond would pay costs less than €5,000, while costs greater than that would involve examination by a quantity surveyor, employed by the Housing Agency. The surveyor examines the defects and determines the cost of rectification in order that the parties can reach agreement. Once the cost is agreed, the figure is final and cannot be re-visited.
- 13.36** The Board has stated that there have been cases where structural defects were identified and remediated and where the Board and the Housing Agency are of the opinion that further to the supplemental agreement, Homebond should make a contribution to the costs for remediating structural defects. The Board estimates that the total cost of remediating non-pyrite related defects was €954,289.
- 13.37** The Board estimates that the initial claim against Homebond is about €887,231. This represents 93% of the estimated total cost of remediating non pyrite related defects. The Board could not provide detail on the process involved in invoicing Homebond and how the amount to be paid by them relating to non-pyrite related remediation works is tracked and stated that the matter is being reviewed. To the end of 2019, Homebond's contribution towards these costs amounted to €52,289 — 6% of the estimated claim.

Scheme monitoring and performance measurement

- 13.38** The key objective of the scheme is to procure the remediation of certain dwellings with significant pyritic damage with optimum efficiency and value for money. Monitoring expected outcomes is important to ensure that funds are used efficiently and effectively and that value for money is obtained.
- 13.39** In monitoring performance, the Housing Agency submits a suite of reports to the Board on a monthly basis, including contractually committed costs and estimates, project tracker and actual and forecasted cash flows. These reports indicate the actual versus budgeted expenditure but, while the variance amounts are highlighted, no written explanations are directly provided in the report.
- 13.40** In monitoring the scheme, the only key performance indicator (KPI) set by the Board is the number of remediated dwellings. The Board has not adopted target times for dwelling remediation (e.g. from receipt of an application to completion of remediation work) or developed performance indicators to measure the quality of the remediation work completed.
- 13.41** In 2019, the Board conducted a survey of 98 homeowners that participated in the scheme to establish the level of overall satisfaction with the remediation services provided. The survey results show that
- 80% of the respondents were either satisfied or strongly satisfied with the overall process of pyrite remediation
 - 71% felt the value of their home had been restored.

- 13.42** Due to the format of the survey, it is not possible to establish why one fifth of respondents were not satisfied with the process or why 29% felt the value of their home had not been restored.

Conclusions and recommendations

- 13.43** The pyrite scheme was introduced as a scheme of last resort for homeowners whose dwellings were affected by pyrite.
- 13.44** Up to the end of 2019, there were 2,548 applications to the scheme. By the end of 2019, dwellings had been remediated in three quarters of those cases. It took on average just under 22 months to complete the works from the date the application was received with actual remediation work accounting for just over one quarter of this time. Target timelines for dwelling remediation have not been adopted.
- 13.45** The initial estimate of the cost of the scheme communicated to the Government in 2013 was that the scheme could potentially cost up to €300 million, based on 6,000 dwellings requiring repair.
- 13.46** The cost of the scheme up to the end of 2019 was €126 million. Total expenditure under the scheme is currently projected at €210 million up to the end of 2023 for the repair of approximately 3,140 dwellings. This represents 52% of the projected number of dwellings and 70% of the cost estimated when requesting Government approval. There is no closing date for the scheme.
- 13.47** The Pyrite Resolution Act provides for the recovery of liabilities from relevant third parties, including suppliers of pyrite-contaminated materials and developers. However, recoveries from third parties have been very limited, amounting to €1.79 million, or 1.4% of the scheme cost to date. Arising from settlement of a legal case against a developer in May 2020, there is agreement for recovery of a further €2.5 million.
- 13.48** Homebond has been identified as the provider of guarantees/warranties to the builders/developers in over 74% of eligible scheme application cases. The Board entered an agreement with the company whereby the company contributed support for the scheme delivery. However, the contribution by Homebond is limited to a value of €2 million. By the end of 2019, Homebond had contributed technical and project management services relating to the implementation of the scheme, to the value of €1.76 million.
- 13.49** Included in the cost of the scheme is the cost of remediation works not related to pyrite that only came to light during the remediation process. The Board estimates the total cost of all such works at €954,289.
- 13.50** Homebond agreed to make an appropriate contribution toward the cost of remediating non-pyrite related damage. The Board estimates the potential claim against Homebond relating to the non-pyrite related remediation work carried out amounts to €887,231. On foot of claims lodged, Homebond paid the Board €52,289 in 2016. The Board could not provide details on the process for tracking the remaining amounts recoverable from Homebond in relation to non-pyrite related remediation works and stated that the matter is being reviewed.

Recommendation 13.1

The Board and Agency should put in place a robust process to quantify the cost of remediating non-pyrite related damage. In addition, the Board should ensure that procedures are put in place to ensure Homebond's complete liability as agreed is monitored and recouped effectively.

Response of the Chairman, Pyrite Resolution Board

Agreed.

The Board, jointly with the Housing Agency will put in place more robust processes to allow for the quantifying of non-pyrite related damage. It will also put in place additional procedures that continue to ensure that Homebond's complete liability as agreed is monitored and recouped effectively. This matter has been the subject of ongoing discussions with Homebond and progress will be accelerated in autumn 2020.

Response of the CEO, Housing Agency

Agreed.

The Housing Agency will re-examine the processes in place to ensure that all structural defects are recorded.

Annex 13A Conditions for eligibility to the Pyrite Remediation Scheme

- Dwellings must be located within the administrative areas of Dún Laoghaire-Rathdown, Fingal, Kildare, Meath, Offaly or South Dublin County Councils; or Dublin City Council.
- Dwellings must have been constructed and completed between 1 January 1997 and 12 December 2013.
- Dwellings must have been assessed, tested and certified as having a damage condition rating of 2 and it must be verified that damage is attributable to pyrite heave.
- An application can only be made in respect of one dwelling and the dwelling must have been purchased before 12 December 2013.
- The applicant must be able to show, to the satisfaction of the Board, that he/she does not have available to him or her any practicable option, other than under the Scheme or the use of his or her own resources, to remediate or secure the remediation of the dwelling.

Source: Pyrite Resolution Board

