# Social housing heat pump installation audit

This audit form was developed by Bristol City Council and Nesta to provide a clear process for auditing and quality assuring heat pumps installations in social housing. If you would like to repurpose this form, please read the instruction provided.

Instructions on how to generate reports from google form responses can be found here.

1. Email *

2. Your name and organisation

3. Name of installation company (as per MCS certificate)

4. Installation postcode

5. First line of installation address

6. Can you see the heat pump data plate

   *Mark only one oval.*

   - yes
   - no

7. Please input year of install (if visible)

_____

8. Please take a photo of the heat pump data plate

   Files submitted:

9. Is the heat pump level

   *Mark only one oval.*

   - ◯ Yes
   - ◯ No

10. Please take a photo of the Heat Pump on a level surface that meets manufacturer requirements?

    Files submitted:

11. Are the minimum clearance distances for the heat pump met as per manufacturer's instructions

    *Mark only one oval.*

    - ◯ Yes
    - ◯ No

12. Please take photo showing minimum clearance distances for the heat pump product, given in the manufacturer's instructions are met, or exceeded?

    Files submitted:

13. Have suitable measures been undertaken to reduce noise transfer to habitable areas, in line with manufacturer's requirements, use of anti-vibration feet & flexible connections?

*Mark only one oval.*

- Yes
- No

14. Have suitable measures been undertaken to reduce noise transfer to habitable areas, in line with manufacturer's requirements, use of anti-vibration feet & flexible connections? (photo)

Files submitted:

15. Is there a means of electrical isolation adjacent to the heat pump?

*Mark only one oval.*

- Yes
- No

16. Is there a means of electrical isolation adjacent to the heat pump? (photo)

Files submitted:

17. Is the isolator easily accessible and does its position meet manufacturer requirements?

*Mark only one oval.*

- Yes
- No

18. Is the isolator easily accessible and does its position meet manufacturer requirements? (photo)

    Files submitted:

19. Are there suitable condensate management arrangements, or a porous surface / soakaway below the heat pump for the condensate run off to drain to?

    *Mark only one oval.*

    - Yes
    - No

20. Do you consider there to be a slip risk or health and safety risk from the lack of condensate management?

    *i.e is there a flat or smooth walking path at risk from freezing?*

    *Mark only one oval.*

    - Yes
    - No

21. Are there suitable condensate management arrangements, or a porous surface / soakaway below the heat pump for the condensate run off to drain to? (photo).

    Files submitted:

22. External pipe insulation: Is pipework passing through the external building fabric suitably sleeved and have penetrations through fabric for pipework been suitably sealed as per requirements of Doc L?

    *Mark only one oval.*

    - Yes
    - No

23. External pipe insulation: Is pipework passing through the external building fabric suitably sleeved and have penetrations through fabric for pipework been suitably sealed as per requirements of Doc L? (Photo).

*Please highlight any exposed visible metal pipework*

Files submitted:

24. Is the insulation continuous on all external pipework, no gaps around valves or strainers?

*Mark only one oval.*

- Yes
- No

25. Is the insulation continuous on all external pipework, no gaps around valves or strainers? (Photo).

Files submitted:

26. Is primary pipework separated from metallic brackets / components and building fabric externally?

*Mark only one oval.*

- Yes
- No

27. Is primary pipework separated from metallic brackets / components and building fabric externally? (photo)

Files submitted:

28. Is the insulation continuous through the building fabric and into the building?

*Mark only one oval.*

- Yes
- No

29. Is the insulation continuous through the building fabric and into the building? (Photo).

Files submitted:

30. Has UV-resistant insulation been used on external pipework, or has type-O insulation been coated with a terpolymer resin paint (such as Armafinish 99)?

*Mark only one oval.*

- Yes
- No

31. Has UV-resistant insulation been used on external pipework, or has type-O insulation been coated with a terpolymer resin paint (such as Armafinish 99)? (Photo).

Files submitted:

32. Is the external insulation sealed to prevent water ingress?

*Mark only one oval.*

- Yes
- No

33. Is the external insulation sealed to prevent water ingress? (photo).

Files submitted:

34. Internal pipe insulation: Is the installation a completely new heating system (if ‘no’, skip next question)?

*Mark only one oval.*

- Yes
- No

35. New heat distribution & emitter system installation: Has continuous pipe insulation been applied to all pipes, valves & fittings according to the requirements of Doc L as described by items a) – c) below? (HP 16)
a) Primary circulation pipes for heating circuits where they pass outside the heated living space, including where pipework passes into voids.b) All primary circulation pipes for domestic hot water.
c) All pipes that are connected to hot water storage vessels, for at least 1m from the point at which they connect to the vessel.

*Mark only one oval.*

- Yes
- No

36. New heat distribution & emitter system installation: Has continuous pipe insulation been applied to all pipes, valves & fittings according to the requirements of Doc L as described by items a) – c) below? (HP 16)
a) Primary circulation pipes for heating circuits where they pass outside the heated living space, including where pipework passes into voids.
b) All primary circulation pipes for domestic hot water.
c) All pipes that are connected to hot water storage vessels, for at least 1m from the point at which they connect to the vessel. (photo)

Files submitted:

37. **If a** full heating system is installed or replaced — including all new emitters (radiators, UFH, etc.) — is the system sized and designed to operate at a maximum flow temperature of 55°C or lower?

*Mark only one oval.*

- Yes
- No

38. Where an existing heating system has been re-utilised / modified or extended: Have ALL accessible pipes been insulated?

*Mark only one oval.*

- Yes
- No

39. Are there any signs of significant damage to internal pipework?

*i.e signs of crushing, wear/damage, or leaks*

*Mark only one oval.*

- Yes
- No

40. Where an existing heating system has been re-utilised / modified or extended: Have ALL accessible pipes been insulated? (Please take a photo of any damage if present).

Files submitted:

41. Is all newly installed pipework straight and true (no skew or diagonal runs)?

*Mark only one oval.*

- Yes
- No

42. Is all newly installed pipework straight and true (no skew or diagonal runs)? (Please take a photo if you can).

Files submitted:

43. Have the electrical cables been sensibly routed and supported / clipped along their route, in accordance with Doc P of Building Regs & BS 7671?

*Mark only one oval.*

- Yes
- No

44. Have the electrical cables been sensibly routed and supported / clipped along their route, in accordance with Doc P of Building Regs & BS 7671? (Please take a photo if you can).

Files submitted:

45. Have all cable ‘tails’ been insulated – outer sheath of insulation fully enclosed into glands/ enclosures?

*Mark only one oval.*

- Yes
- No

46. Have all cable ‘tails’ been insulated – outer sheath of insulation fully enclosed into glands/ enclosures? (Please take a photo if you can).

    Files submitted:

47. Is the heat pump on its own correctly labelled, dedicated circuit, with an appropriately sized MCB as per manufacturer’s instructions?

    *Mark only one oval.*

    - ◯ Yes
    - ◯ No

48. Is the heat pump on its own correctly labelled, dedicated circuit, with an appropriately sized MCB as per manufacturer’s instructions? (Please take a photo if you can).

    Files submitted:

49. Is the hot water for the shower/bath provided by the heat pump?

    _____

50. What size is the water cylinder?

    _____

51. Is the heat pump split or monobloc?

    _____

52. Are the heat emitters (radiators / underfloor heating) appropriately sized for the heat pump system?

53. What is the flow rate of the system?

54. Is the home fitted with a smart meter?

*Mark only one oval.*

- Yes
- No

55. Is there a means of recording and displaying the total electricity consumption of the system, either a proprietary meter or can energy usage be monitored through the heat pump controller? If yes please provide the SCOP.

*Mark only one oval.*

- Yes
- No

56. Total SCOP heating (please make note if not full year)

57. Total SCOP Hot Water (please make note if not full year)

58. Total SCOP combined

59. Notes on Commissioning and Handover (MIS 3005 D & I, Section 7.1): (Capture Part G requirements, including D1 & D2 configuration and the DHW cylinder label having been completed and signed, in accordance with AD G3 of Building Regs):

*Mark only one oval.*

- Yes
- No

60. Please note the existing commissioning configuration (e.g. weather compensation slope value, existing setback temp etc.)

61. Please note all of the commissioning configuration changes you have made during the audit (e.g. new weather compensation slope value, new setback temperature, enabling/disabling electric backup)

62. Please provide commentary on the general system design/ installation

63. Is a low loss header or buffer present? If so, do you think the system may be improved by removing and adjusting the system accordingly? Please explain your reasoning

64. Please confirm key actuator valves (automated/controlled valves) open/close smoothly/appropriately, no sticking – primarily the Diverter Valve.

*Mark only one oval.*

- Yes
- No

65. Confirm that pressure relief / isolation / safety valves have no signs of weep, corrosion, or seal failure

*Mark only one oval.*

- Yes
- No

66. Confirm pressure on heating loop meets manufacturer guidelines and building regs

*Mark only one oval.*

- Yes
- No

67. Please list remedial works required that are safety critical (e.g. live wires, trip hazards etc) and a cost estimate to remedy (high priority)

68. Please list remedial and cost estimates for works that are highly recommended but not safety critical e.g. insulating pipework, other works to enable heat pump to work at scop of around 3 and to ensure longevity of system  (Medium priority)

69. Please list remedial and cost estimates for works that are recommended but not essential to achieve a higher performing system e.g. scop 3+ (low priority)

70. Given the age of the heat pump, and feasibility of repairs, would you recommend a return visit to conduct repairs on this property? Please provide commentary on your decision

71. Any other comments?