Applying for decarbonisation funds and delivering projects

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& Directors of Salvis

BE PREPARED

Is your asset data appropriate?

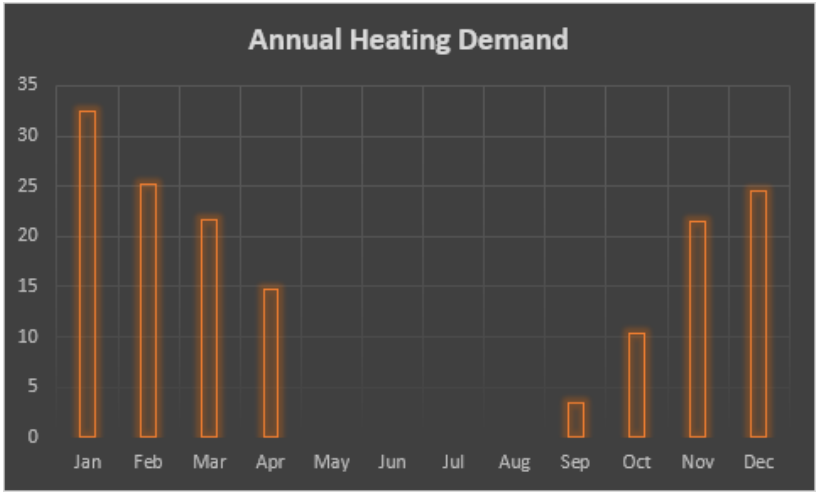
- Create a prioritised asset list
  - Opportunity for greatest savings
  - Age of building and services
  - Available space
  - Pick projects that can be delivered quickly

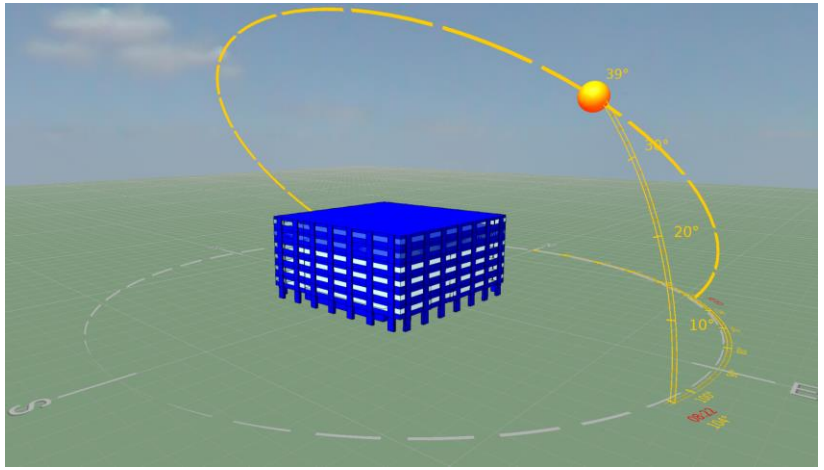
Public Sector Decarbonisation Scheme

- Technical application
- Existing and proposed energy usage (whole building and services)
- Pre and post peak heat loss and system sizing
- Age of plant (end of useful life)
- Detailed cost breakdown
- Electrical capacity
- Like for like boiler costs
- 12% Compliant Marginal Project Value
- £325 tCO_2eLT

Calculating Building Heat Demand

- Automatic Meter Reading (AMR)
- Capacity of existing plant
- Rule of Thumb
- Calculation
- Building Modelling





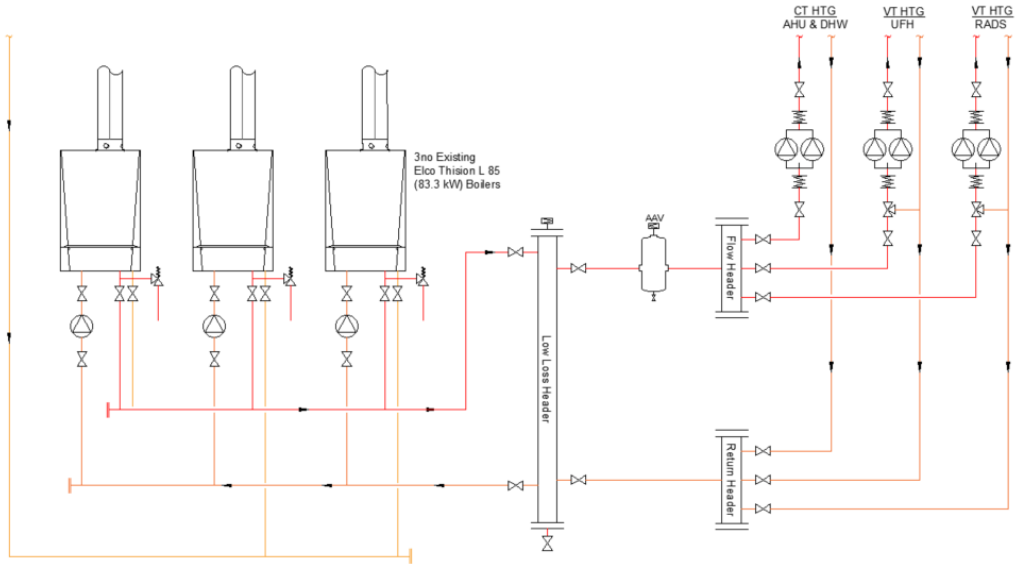
Building Fabric Review

- Windows
- External Walls
- Roof
- Post 1995 Buildings

Survey of Existing Services

Existing Heating Plant

- Heat Sources
- Heating Distribution
- Heating Control



Existing Hot Water Plant

- Domestic Hot Water Generation
- Cold Water Supply
- Hot Water Distribution
- Hot Water Plant Control

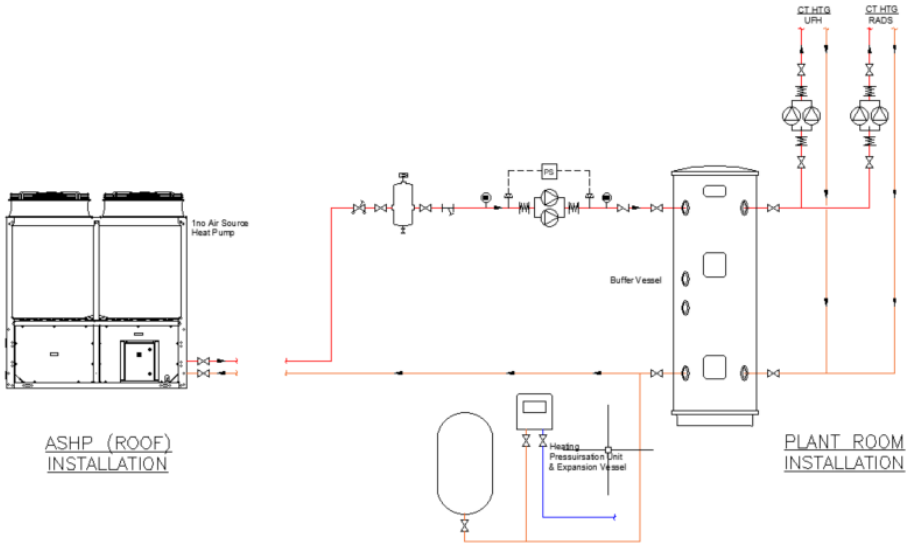
Technical Options Appraisal

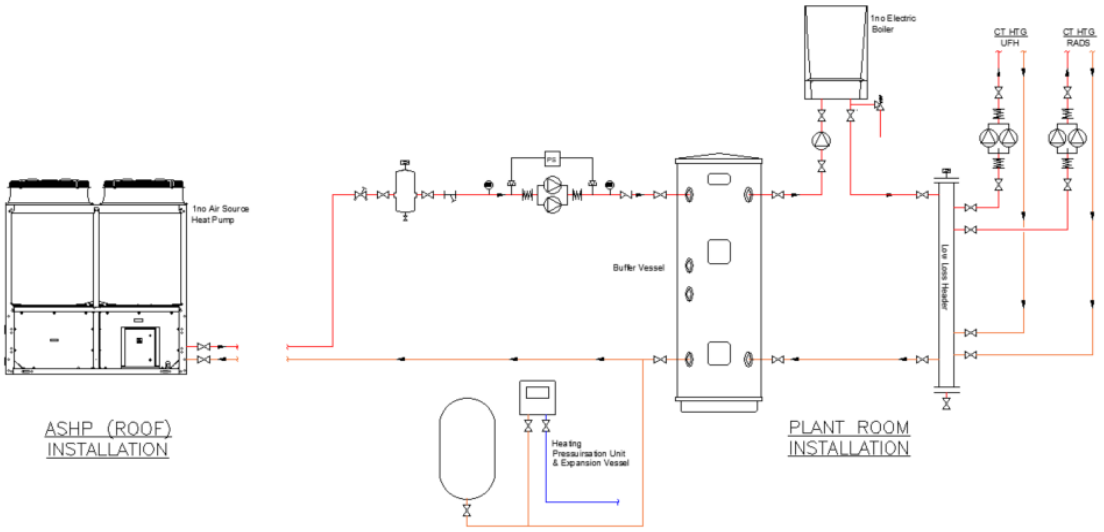
- Low Carbon Heating Solutions

ASHP vs GSHP vs WSHP

LOW TEMP vs HIGH TEMP

HEAT PUMP vs HYBRID


CT HTG UFH
CT HTG RADS
1no Air Source Heat Pump
Buffer Vessel
Heating Pressurisation Unit & Expansion Vessel
ASHP (ROOF) INSTALLATION
PLANT ROOM INSTALLATION


1no Electric Boiler
CT HTG UFH
CT HTG RADS
1no Air Source Heat Pump
Buffer Vessel
Low Loss Header
Heating Pressurisation Unit & Expansion Vessel
ASHP (ROOF) INSTALLATION
PLANT ROOM INSTALLATION

Technical Options Appraisal

- Low Carbon Hot Water Solutions

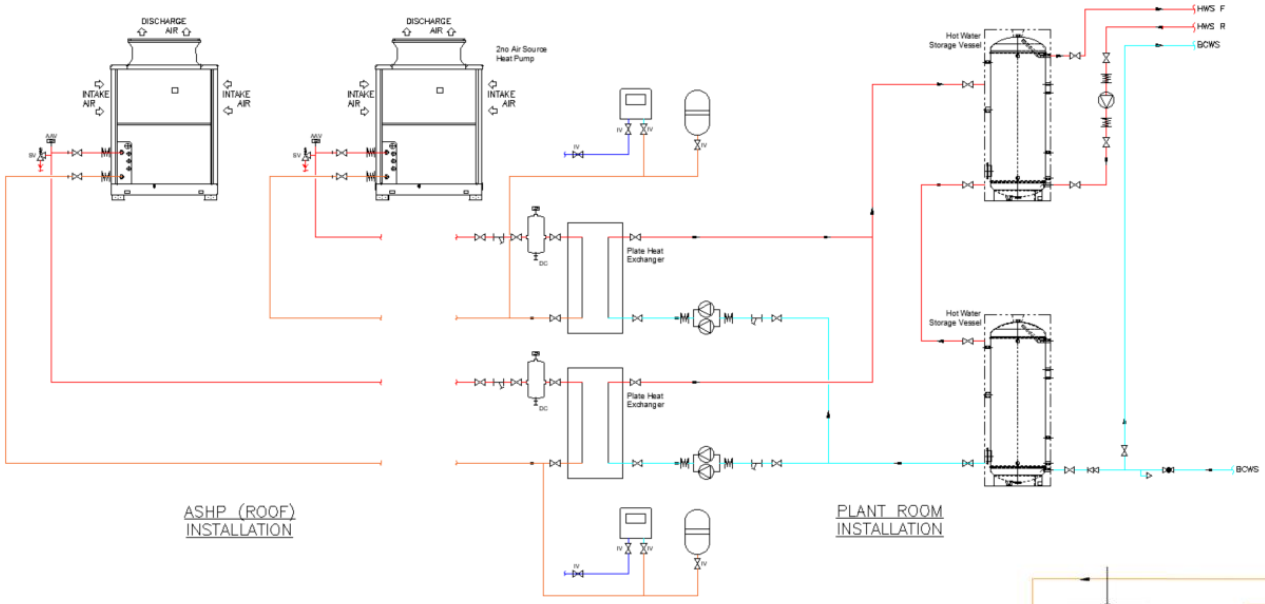
DIRECT ELECTRIC

VS

HEAT PUMP

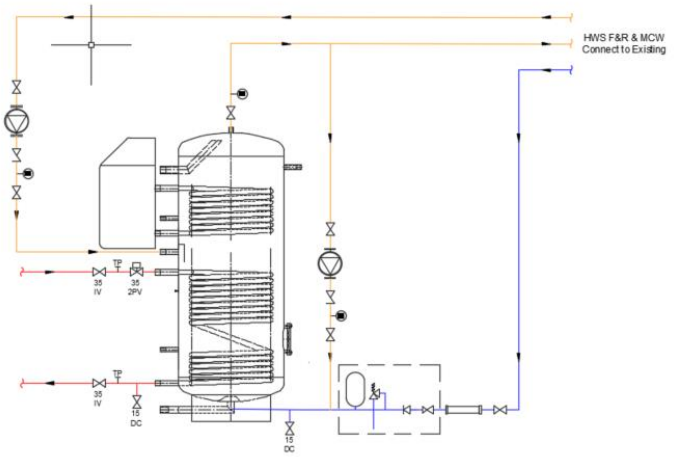
VS

HYBRID



ASHP (ROOF) INSTALLATION

PLANT ROOM INSTALLATION



PLANT ROOM INSTALLATION

Technical Options Appraisal

- Lighting & Controls
- Renewable Technologies
- Building Management System
- Heat Recovery

Budget Costings

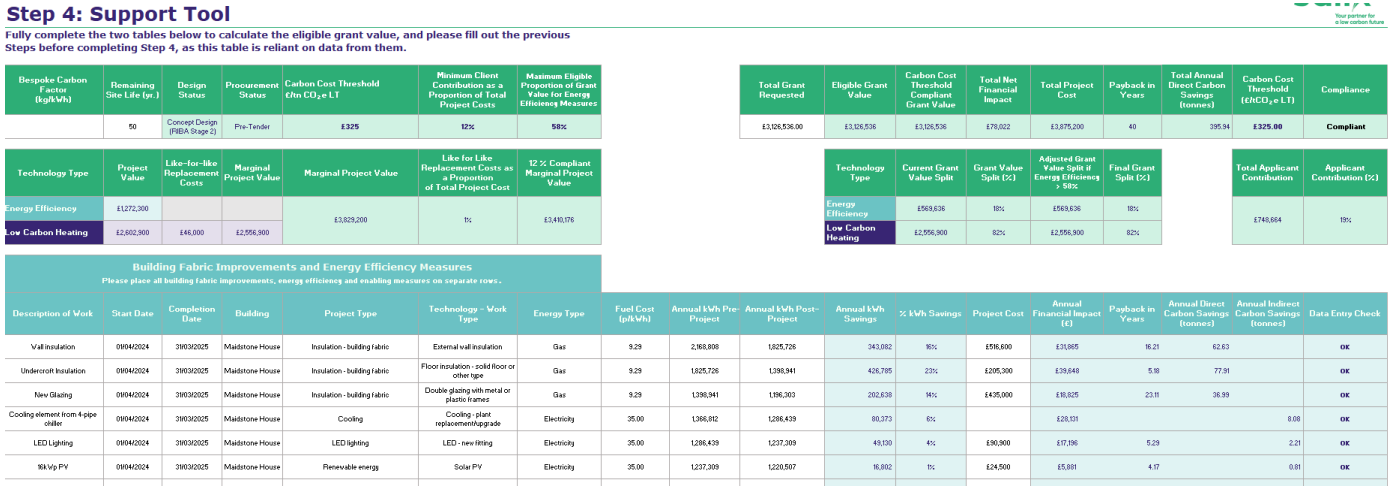
Item	Description	Cost
1	Preliminaries	£7,000
2	Removal of Existing	£9,000
3a	Heating Air Source Heat Pumps	£95,000
3b	ASHP Acoustic Attenuation	£10,000
3c	Buffer Vessel	£4,500
3d	Primary & Secondary Pumps	£22,000
3e	Plant Room Pipework,Valves, & Ancillaries	£10,000
4	Distribution Pipework & Radiators	£80,000
5	Automatic Controls & Electrical	£52,000
6a	External Pipework	£10,000
6b	Builderswork (incl trenching, fencing, bases)	£35,000
6c	Glycol Anti-Freeze	£4,000
7a	Testing & Commissioning	£2,500
7b	Record Information	£1,500
8	Contingency Sum	£35,000
9	**Works Budget Total**	**£377,500**
10	Professional Fees	£31,000
11	**Project Budget Total**	**£408,500**

Energy Savings

- Must provide detailed calculations of energy savings
- Existing and proposed energy usage

The Public Sector Decarbonisation Scheme (PSDS)

- The process
- Filling out the form
- Senior Management Support
- Submitting the form



Step 4: Support Tool

Fully complete the two tables below to calculate the eligible grant value, and please fill out the previous Steps before completing Step 4, as this table is reliant on data from them.

Bespoke Carbon Factor (kg/kWh)	Remaining Site Life (yr.)	Design Status	Procurement Status	Carbon Cost Threshold £/tn CO_2e LT	Minimum Client Contribution as a Proportion of Total Project Costs	Maximum Eligible Proportion of Grant Value for Energy Efficiency Measures
	50	Concept Design (RIBA Stage 2)	Pre-Tender	£325	12%	88%

Total Grant Requested	Eligible Grant Value	Carbon Cost Threshold Compliant Grant Value	Total Net Financial Impact	Total Project Cost	Payback in Years	Total Annual Direct Carbon Savings (tonnes)	Carbon Cost Threshold (£/tCO_2e LT)	Compliance
£3,126,536.00	£3,126,536	£3,126,536	£78,022	£3,875,200	40	395.94	£325.00	Compliant

Technology Type	Project Value	Like-for-like Replacement Costs	Marginal Project Value	Marginal Project Value	Like for Like Replacement Costs as a Proportion of Total Project Cost	12 % Compliant Marginal Project Value
Energy Efficiency	£1,272,300			£3,829,200	1%	£3,410,176
Low Carbon Heating	£2,602,900	£46,000	£2,556,900			

Technology Type	Current Grant Value Split	Grant Value Split (%)	Adjusted Grant Value Split if Energy Efficiency > 98%	Final Grant Split (%)
Energy Efficiency	£569,636	18%	£569,636	18%
Low Carbon Heating	£2,556,900	82%	£2,556,900	82%

Total Applicant Contribution	Applicant Contribution (%)
£749,664	19%

Building Fabric Improvements and Energy Efficiency Measures

Please place all building fabric improvements, energy efficiency and enabling measures on separate rows.

Description of Work	Start Date	Completion Date	Building	Project Type	Technology - Work Type	Energy Type	Fuel Cost (p/kWh)	Annual kWh Pre-Project	Annual kWh Post-Project	Annual kWh Savings	% kWh Savings	Project Cost	Annual Financial Impact (£)	Payback in Years	Annual Direct Carbon Savings (tonnes)	Annual Indirect Carbon Savings (tonnes)	Data Entry Check
Wall insulation	01/04/2024	31/03/2025	Maidstone House	Insulation - building fabric	External wall insulation	Gas	9.29	2,168,898	1,825,726	343,082	16%	£516,600	£31,865	16.21	62.63		OK
Undercroft Insulation	01/04/2024	31/03/2025	Maidstone House	Insulation - building fabric	Floor insulation - solid floor or other type	Gas	9.29	1,825,726	1,398,941	426,785	23%	£205,300	£39,648	5.18	77.91		OK
New Glazing	01/04/2024	31/03/2025	Maidstone House	Insulation - building fabric	Double glazing with metal or plastic frames	Gas	9.29	1,398,941	1,196,303	202,638	14%	£435,000	£18,825	23.11	36.99		OK
Cooling element from 4-pipe chiller	01/04/2024	31/03/2025	Maidstone House	Cooling	Cooling - plant replacement/upgrade	Electricity	35.00	1,366,812	1,286,439	80,373	6%		£28,131			8.08	OK
LED Lighting	01/04/2024	31/03/2025	Maidstone House	LED lighting	LED - new fitting	Electricity	35.00	1,286,439	1,237,309	49,130	4%	£90,900	£17,196	5.29		2.21	OK
16kVp PV	01/04/2024	31/03/2025	Maidstone House	Renewable energy	Solar PV	Electricity	35.00	1,237,309	1,220,507	16,802	1%	£24,500	£5,881	4.17		0.81	OK

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Project Delivery Programme

- Brief/ Scope Preparation
- Design Procurement
- Design
- Works Procurement
- Installation
- Post Completion

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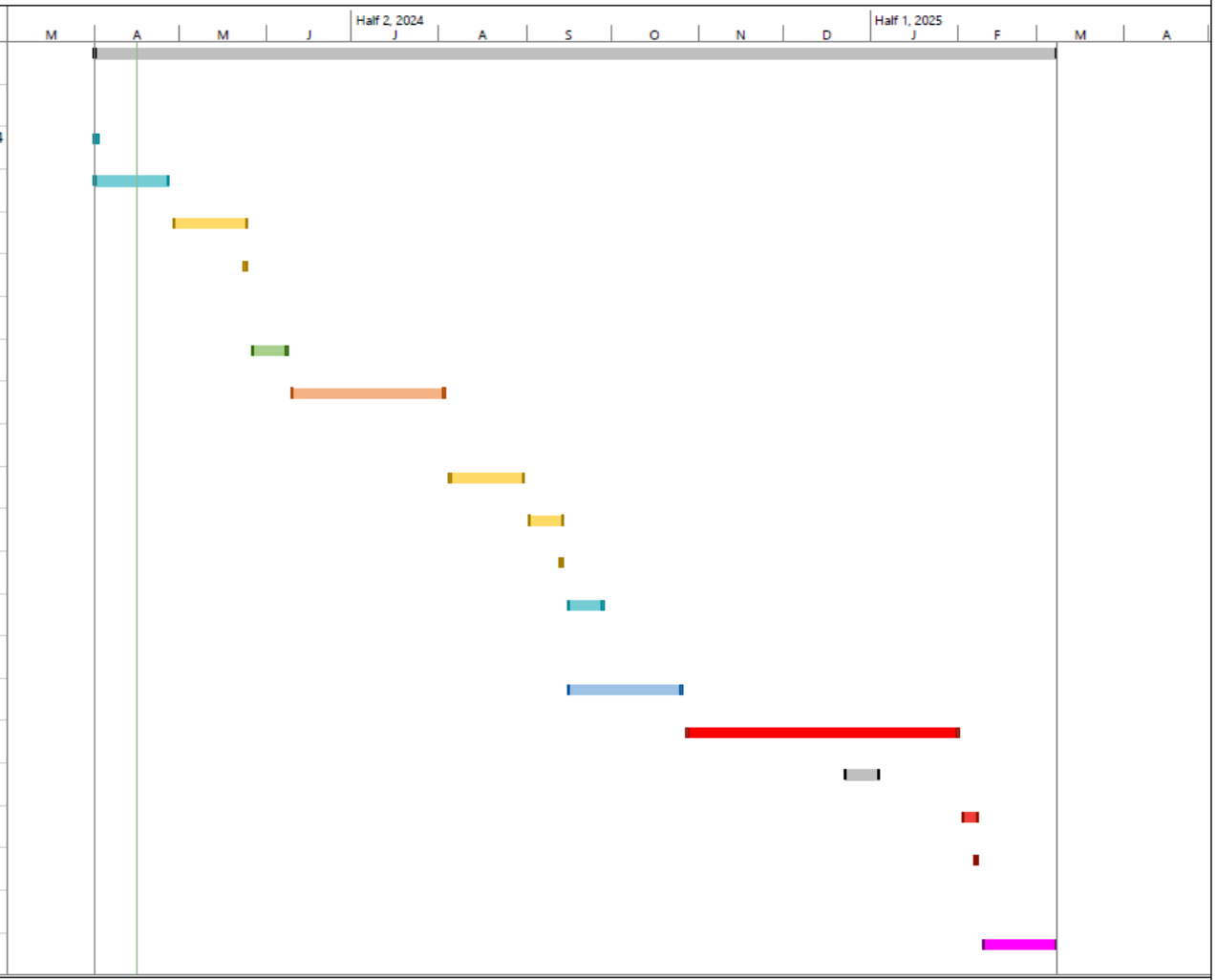
ID	Task Name	Start	Duration	Finish
1	Project	Mon 01/04/24	245 days	Fri 07/03/25
2				
3	Funding Award	Mon 01/04/24	1 day	Mon 01/04/24
4	Client Mobilisation	Mon 01/04/24	20 days	Fri 26/04/24
5	Consultant Procurement	Mon 29/04/24	20 days	Fri 24/05/24
6	Contractor Appointment	Fri 24/05/24	1 day	Fri 24/05/24
7				
8	Consultant Lead In	Mon 27/05/24	10 days	Fri 07/06/24
9	Technical Design	Mon 10/06/24	40 days	Fri 02/08/24
10				
11	Tender	Mon 05/08/24	20 days	Fri 30/08/24
12	Tender Evaluation	Mon 02/09/24	10 days	Fri 13/09/24
13	Contractor Appointment	Fri 13/09/24	1 day	Fri 13/09/24
14	Procurement Standstill	Mon 16/09/24	10 days	Fri 27/09/24
15				
16	Contractor Lead In	Mon 16/09/24	30 days	Fri 25/10/24
17	Installation	Mon 28/10/24	70 days	Fri 31/01/25
18	Christmas Shutdown	Mon 23/12/24	10 days	Fri 03/01/25
19	Commissioning & Testing	Mon 03/02/25	5 days	Fri 07/02/25
20	Hand Over	Fri 07/02/25	1 day	Fri 07/02/25
21				
22	Collation of Salix Info	Mon 10/02/25	20 days	Fri 07/03/25

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Post Completion

- Performance guarantees
- Soft landings
- Performance monitoring
- Lessons learnt – what next?

Project Risks

1. DNO
2. Procurement
3. Resources
4. Market / Pricing Volatility
5. Internal Projects Approvals

The Net Zero Journey Summary

- Get your data and estate in order
- Calculate emissions
- Do a Net Zero trajectory
- Carry out on-site energy audits
- Engineering design
- Procurement
- Installation
- Measurement and verification

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Contact details

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