

**Trust Management Executive Meeting: Thursday 26 November 2015**

**TME2015.285**

<b>Title</b>	<b>The Hospital Energy Centre Project Update Report</b>
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<b>Status</b>	For Information
<b>History</b>	The Full Business Case was supported by TME on 26 <sup>th</sup> February 2015 and was approved by the Trust Board on 11 <sup>th</sup> March 2015.

<b>Board Lead(s)</b>	<b>Mr Mark Mansfield, Director of Finance</b>			
<b>Key purpose</b>	Strategy	Assurance	Policy	Performance

## Executive Summary

1.1 This Project represents the Trust's most significant investment in the energy generation and primary distribution infrastructure at the JR and CH in 40 years. TME members will recall that the Project provides the Trust with not only the opportunity to make guaranteed annual savings but also to reduce its risks given the amount of dilapidated plant that is being replaced and then managed by others.

1.2 This report provides an update on progress on the project. It was presented previously by the project manager to the Project Board meeting on the 23<sup>rd</sup> November.

1.3 The Project has started on site and the contractor has a well-resourced and experienced team on site.

1.4 The Trust have struggled to resource adequately the Project and several of the Project risks are placing pressure upon the Project timetable and therefore costs.

1.5 The impact of the Project upon local Headington residents and their reaction and therefore reputational risk to the Trust also needs to be acknowledged and has been the subject of recent press coverage.

Author	Mark Bristow MRICS, BSc(Hons), Cert Mgt (Project Manager)
<b>Overview</b>	
Briefly describe the project:	
<p>Replacement of the dilapidated central energy generation plant at JR and CH sites and provision of an Energy Link between the sites.</p> <p>Vital Energi are Trusts partner in providing this project with a project construction value of circa £15M and an overall contract value of circa £48M, the project is funded by Aviva. The contract states the Trust will realise guaranteed overall savings to the Trust in excess of £500k per annum, (this will be more if the current differential between electricity and gas prices continues) together with new greener energy generation.</p>	
<b>1. Progress</b>	
a)	Contract Signed by all parties. 18 <sup>th</sup> June 2015
b)	Start on Site 4 <sup>th</sup> September 2015 with completion planned for end Dec 2016.
c)	Team of in excess of 100 Vital employees/ sub- contractors working upon the detail design, co-ordination and site installation of plant, for a phased plan of works covering 18-months.
d)	Project being managed by Trust Estates
e)	Approx. 60% of detailed design has been assessed and approved by Trust.
f)	Major shutdowns on JR site have occurred to facilitate initial changes in plant.
g)	First sections of Energy link are being installed on JR site.
<b>2. Risk Management</b>	
<ul style="list-style-type: none"> <li>The Trust is currently reviewing the Project Risk Matrix to ensure that this aligns with the Trust assessment of risk. There are several programming risks where potential delays in the programme could represent a financial risk to the Trust (we await formal confirmation from CEF of delay costs but understand these to be of the order of £60k per week). The Trust have to date received 3 delay notices under the contract.</li> </ul> <p>These reasons for delays include :-</p> <ul style="list-style-type: none"> <li>Insufficient project resource leading to delays in responses to requests for information that is additional/ further details to that set out in the contract</li> </ul>	

- documents.
- Frailty of current infrastructure that is needed to support the project through the initial phases.
- Anticipated delays in assessing and approving Project Variations (contract method of dealing with unexpected issues) since no Capital Contingency currently exists on the Project.
- Delays to digging energy link pipe on JR site due to
  - Works by University WIMM building.
  - Need to review design of pipe trench as it passes between Women's Centre and WIMM building.
  - Need to reposition heat station 8 owing to planning issues.
- Delays in planning final pipe route on CH site due to concerns relating to traffic movements if the main road (Churchill Drive) is closed!
- Delays relating to managing and removal of asbestos which was not identified in the contract documents. Major issue at CH site, less significant issue JR site.
- Concerns re robustness of Energy Generation Dec 2015- June 2016 as old boilers are removed and new engine is installed.

The Trust also faces a reputational risk as the Energy Link element of the project involves digging a large trench, closing several roads through the residential streets of Headington to link the JR and CH hospitals.

The Trust are posting information on website and information boards for the public from 30<sup>th</sup> November. The Trust therefore anticipate a significant local reaction to the project.

**3. Cost Pressures**

There is no capital funding to support any scheme contingency, instead this is currently being met via the Estates revenue budget.

Delays are anticipated because of the time involved in considering and approving Variation Enquiries (contract methodology for dealing with unanticipated changes, which are inevitable on a scheme of this scale)

A series of Variation Enquiries are currently being considered by the Trust, these relate to

- Problems with the physical route for the Energy Link due to traffic, third party and delivery issues.
- Asbestos delaying progress.
- Insufficient power for temporary energy arrangements.
- Insufficient up to date information about installations in Trust plant rooms that this project is due to connect to delaying detailed design.

<b>4</b>	<b>Communications</b>
a)	Internal Communications relating to unavoidable delays to traffic and interruptions to power supplies are ongoing at the JR site and will be required at the CH site in 2016.
b)	External Communications with stakeholders are in an advanced stage of preparations and are due to be launched with the support of the Trust Communications Team on 30 <sup>th</sup> November. There is already a known resistance to the Energy Link from local Headington Councillors.
<b>5</b>	<b>Project Management Arrangements</b>
a)	<p><b>Project Structure</b></p> <p>The Project is supported by a Project Board, led by Mark Mansfield DoF.</p> <p>The day to day management of the Project is supported by Mark Neal -Interim Head of Estates</p> <p>The Project also has the benefit of 3<sup>rd</sup> party contract advice from the Carbon Energy Fund.</p>
b)	<p>Weekly/ Fortnightly meetings are occurring under the following headings</p> <ul style="list-style-type: none"> <li>• Contractor Liaison (weekly)</li> <li>• Energy Shutdown preparation (fortnightly)</li> <li>• Traffic and Travel (fortnightly)</li> <li>• Communications (fortnightly)</li> </ul>
c)	Communications with Third parties e.g. PFI providers and University are ongoing.
<b>6</b>	<b>Recommendation</b>
	<p>It is recommended that the progress of the project is noted.</p> <p>It is recommended that project resourcing and financial support (in conjunction with costs of delays) to the project are assessed.</p> <p>It is recommended that the Risk Matrix is reviewed (once available) and variation enquiries progressed accordingly to prevent further delays on the project.</p> <p>It should be noted that External Communications represent a reputational risk to the Trust.</p>

November 2015

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Dear Resident,

### The Hospital Energy Project

Vital Energi is working with Oxford University Hospitals NHS Foundation Trust to upgrade the heating and hot water systems that serve patients at both the John Radcliffe Hospital and Churchill Hospital.

The Hospital Energy Project is the most complex NHS energy project in the UK and the largest NHS energy project of its kind currently underway at any NHS Trust in England. To give you some idea of the scale required of its energy systems, each year the Trust's 12,000 employees take care of over one million patient contacts with around 130,000 emergency department attendances and delivering around 9,000 babies.

This heating, hot water and energy project is critical as the current systems are outdated and inefficient with some oil-fired boilers being more than fifty years old. The Trust also needs to put in place energy systems at both hospitals flexible enough to meet growing demands in heating and hot water supplies should patient numbers increase and facilities expand in the future, while meeting environmental regulations. Once complete, the hospitals will be less reliant on the national grid for energy supply.

At a time when the NHS is under financial pressure, this project is hugely beneficial, saving future energy costs in the millions of pounds. This is money that the Trust could better use for other purposes, including more doctors and nurses. The project has been procured through the Carbon and Energy Fund (CEF) with investment provided by Aviva, without cost to the hospitals.

As a large organisation, the Trust is doing its part to protect and improve the environment and the new systems will ensure a reduction in the hospitals carbon footprint and improve air quality in your local area. This project reduces the hospitals CO2 emissions by up to 30%. Over the 25-year contact period with Vital Energi, that equates to taking 3,000 cars off the road every year.

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To achieve these benefits, the project requires that the John Radcliffe Hospital and the Churchill Hospital be connected with an underground pipework allowing the transfer of energy. A total of 2.2km of pipework will be installed in the underground trench. Cable will also be laid in the trench to improve data transfer.

Please rest assured that the Trust is working with Vital Energi to limit disruption to your access and assures you everything is being done to keep this time to an absolute minimum.

If you have any queries, you can view full details of the Hospital Energy Project at informative displays in the John Radcliffe and Churchill hospitals. You can also see these plans online, full details of the pipe route and road closures at the Trust website [www.ouh.nhs.uk](http://www.ouh.nhs.uk)

or follow the progress of works on twitter @ouh\_estates  
#ouhenergy

Vital Energi is fully responsible for the road closures, digging and laying of the pipework in accordance with Section 50 permissions from Oxfordshire County Council. The roads will be re-instated using the methods agreed with Oxfordshire County Council, Highways and Transport department. The Council will review and approve the workmanship and contractors, Vital Energi will provide an ongoing maintenance service for a period of two years after the works are complete. This activity is coordinated with Oxfordshire County Council and normal practice for utility supplies.

For any queries or concerns about the trench and digging works please contact *Vital Energi* on 08006124039. We sincerely apologise for any inconvenience caused and appreciate your patience and support.

The John Radcliffe  
Headley Way  
Headington  
Oxford  
OX3 9DU

hospitalenergyproject@ouh.nhs.uk

**OUH ENERGY PROJECT  
NOTES FROM THE FIRST  
HEADINGTON LIAISON GROUP STAKEHOLDERS' FORUM  
22 DECEMBER 2015  
POST GRAD CENTRE, JR HOSPITAL**

**ATTENDING:**

**TRUST:** Mark Neal, Mark Bristow, Jo Lennon

**VITAL ENERGI:** [REDACTED]

**RESIDENTS' REPRESENTATIVES & STAKEHOLDERS:** Included County and City Councillors, Headington Residents' Association, Highfield Residents Association, Cyclox .

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The Trust apologised for the lack of communications in the past and confirmed the appointment of Jo Lennon as Community Liaison for this Project and she started work at the Trust on 4<sup>th</sup> January. Her email is [REDACTED]

**AGREED ACTIONS:**

1. The forum will meet every three weeks for the immediate future and the frequency of meetings will be reviewed as the Project progresses.
2. The meetings will be in All Saints Church Hall whenever possible.
3. Next meeting (now confirmed) 18<sup>th</sup> January 1830 at All Saints Church Hall.
4. The group will be called the Headington Liaison Group Stakeholders' Forum.
5. A newsletter will be produced by the Trust and Vital Energi on a monthly basis to inform residents of the Energy Project's progress. This will be disseminated to Councillors and stakeholders by email and they will cascade it to their own databases. It will also be posted on the <http://www.ouh.nhs.uk/about/energy/default.aspx> website.
6. Letters are currently being sent to residents two weeks before the work is due to start on the section of the route that directly affects them and this will continue.
7. Membership of the forum should be limited to residents' representatives rather than an open forum.
8. A cross section of the pipe will be brought to the next meeting so that residents can see exactly what is being laid.

From Operational Estates  
Oxford University Hospitals NHS Foundation Trust



The John Radcliffe  
Headley Way  
Headington  
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OX3 9DU

hospitalenergyproject@ouh.nhs.uk

9. Vital Energi re-iterated their experience in this type of work and cited recent projects of similar size in other parts of the UK. Councillor Brighthouse requested information on a project in Sleaford. VE to supply.
10. The Trust is providing space for a temporary car park on the corner of Woodland Road and has secured free residents' parking permits for households along the route for the duration of the work outside their homes. These are available through the Council Application forms and supporting documents can be presented in person at the Parking Shop on Speedwell Street, Oxford, posted, or scanned to the email address: parking.shop@oxfordshire.gov.uk. The postage cost for sending the permits, with the exception of any requests for special delivery, will be covered by the County Council.
11. Vital Energi also answered specific questions on:
  - a. Parking on the affected streets,
  - b. technical details of the trench and the construction of the pipeline,
  - c. removal of soil and waste,
  - d. noise management,
  - e. safety,
  - f. ongoing maintenance,
  - g. working hours,
  - h. traffic management systems,
  - i. access to St Luke's Hospital,
  - j. contractors' parking arrangements
  - k. access for the emergency services, the disabled, deliveries and individual homes during the works,
  - l. signage,
  - m. security day and night,
  - n. the height and robustness of the fencing around the trench to avoid pedestrian accidents.
12. Next meeting invitations have now been sent out for Monday 18<sup>th</sup> January, 1830-1930, Upper Hall, All Saints' Headington Church, Lime Walk, Oxford, OX3 7AL.

The John Radcliffe  
 Headley Way  
 Headington  
 Oxford  
 OX3 9DU

hospitalenergyproject@ouh.nhs.uk

**OUH ENERGY PROJECT  
 NOTES FROM THE SECOND  
 HEADINGTON LIAISON GROUP STAKEHOLDERS' FORUM  
 18 January 2016**

Upper Hall, All Saints Church House

**ATTENDING:**

**TRUST:** Mark Mansfield, Mark Neal, Mark Bristow, Jo Lennon

**VITAL ENERGI:** [REDACTED] Ashley Malin, [REDACTED]

**RESIDENTS' REPRESENTATIVES & STAKEHOLDERS:** [REDACTED]  
 [REDACTED]  
 [REDACTED]  
 [REDACTED]

Mark Neal and Ashley Malin opened the meeting stating that Vital decided that it would be best practice to temporarily suspend the work on the pipeline while the Planning Application and legal challenges are underway. The decision was voluntary. Work on the hospital sites continues.

**AGREED ACTIONS:**

ACTION	BY
1. Traffic management and signage were identified as an issue for Lime Walk and Windmill Road (specifically) and other streets around the pipeline work. Mark Neal and VE to consult with Highways, explore temporary traffic calming measures and improvements to the current plan and report back to the next meeting. Councillor Brighthouse will also take it up with the County Council.	OUHT, VE, LB
2. The Churchill Drive work could produce a major bottleneck, which will impact on Old Road and Cheney School. VE & Trust to request re-phasing of the Roosevelt road/Old Road traffic lights and look at ways to mitigate the impact of the work.	OUHT

3. Patient letters to be revised to include info on the road closures and advise the use of the public transport.	OUHT
4. The provision of free visitors' car parking permits for households as they are affected by the work will continue. The Parking Office will be given a revised timetable and schedule before work re-commences.	OUHT
5. All households along the route (and Old Road residents who park in Stapleton Road) will be sent a letter with the new timetable once it is agreed. The info will also be shared with BBC Radio Oxford, The Oxford Mail, Jack FM, all NHS staff, be posted on the website and tweeted. Recommendations for staff and patients to use public transport will be included.	OUHT
6. Planning permission is being sought for a temporary car park for c. 15 cars on Woodland Road and bays on Churchill Drive will be made available solely for households affected by pipeline work.	VE/OUHT
7. Latimer Road residents to form a sub group to address their particular concerns.	
8. VE confirmed that no side roads or junctions will be blocked off to traffic during the work.	VE
9. Mark Mansfield and VE to prepare a statement that clarifies the funding arrangements for the entire Hospital Energy Project.	OUHT/VE
10. The Comms programme will continue. Stakeholders were asked to nominate one representative who could commit to attending all meetings and be responsible for disseminating information. Jo Lennon to continue as Liaison and producing information for stakeholders.	OUHT
11. A newsletter will be produced by the Trust and Vital Energi on a monthly basis once work re-commences to inform residents of the Energy Project's progress. This will be disseminated to Councillors and stakeholders by email and they will cascade it to their own databases. It will also be posted on the <a href="http://www.ouh.nhs.uk/about/energy/default.aspx">http://www.ouh.nhs.uk/about/energy/default.aspx</a> website, tweeted and send out to the local media.	OUHT
12. A cross section of the pipe was brought to the meeting so that residents could see exactly what is being laid.	VE
13. Next meeting invitations will be sent to all the above – <b>provisionally</b> Thursday 18 <sup>th</sup> February 2016 in Upper Hall, All Saints Church House. Meetings are open to the public and their nominated representatives.	ALL

Circulation: All above, OUHT Comms Team,

**Energy Centre Project Board Meeting**

Minutes of the Energy Centre Project Board meeting held on Thursday 22<sup>nd</sup> October at 8am in the Vital Energi White Building, 129 Osler Road, JR.

Present: Mark Neal MN Interim Head of Estates (Chair)  
 Claire Hennessy CH Senior Operational Estates Manager  
 Mark Bristow MB Project Manager  
 Gemma Boldon GB Finance Business Partner  
 Jane Edwards JE Procurement Manager  
 Ashley Malin AM Vital Energi  
 Edd Newton EN Head of Financial Planning & Technical

**In attendance**

Jessica Tobias JT Executive Assistant (minute taker)

Apologies: Mike Cooke MC Vital Energi  
 Gary Welch GW Head of Procurement  
 Marcus Ballard MB CEF

		<b>ACTION</b>
<b>1.</b>	<b>Introductions and Apologies</b>  As above.	
<b>2.</b>	<b>Terms of Reference</b>  The terms of reference for the group were tabled subject to the following clarifications and comments: <ul style="list-style-type: none"> <li>• Mark Mansfield to be added as the Project Sponsor &amp; Chair</li> </ul> The final draft will be circulated at the next meeting.	
<b>3.</b>	<b>Director's Report</b> The issue of asbestos management was raised as a prominent issue. The management survey that was conducted was not an intrusive survey of the asbestos risk. Vital Energi are not insured to deal with asbestos and will need to bring an external contractor in to give costings to complete the work. Vital Energi to put options and proposals together around the management of asbestos removal.  A new Project Manager has been recruited to give project support two days a week. He is currently working on the Energy Project and St. Georges'.  Electrical infrastructure was raised as a potential issue. CH is working with Oxford University to resolve the electricity supply and transformer. AM to draw up a schedule of how much power is needed and when. This will allow for the Trust to know exactly what the requirements are and enable us to meet them on time.	<b>AM</b>
	The route onto the Churchill site is a concern. The route detailed in the FBC has been tested in terms of traffic management and would involve the closure of Churchill drive. The Trust is working with Vital Energi to see if an alternative route can be taken and the PFI holder has been engaged. The current route will go past the entrance to Manor Hospital and St Luke's Nursing home and there could be some local resistance from residents and staff.	

## Energy Centre Project Board Meeting

Minutes of the Energy Centre Project Board meeting held on Monday 23<sup>rd</sup> November at 2.30pm in the Vital Energi White Building, 129 Osler Road, JR.

Present: Mark Mansfield MM Executive Director of Finance & Procurement (Chair)  
 Claire Hennessy CH Senior Operational Estates Manager  
 Mark Bristow MB Project Manager  
 Gemma Boldon GB Finance Business Partner  
 Jane Edwards JE Procurement Manager  
 Ashley Malin AM Vital Energi  
 Edd Newton EN Head of Financial Planning & Technical  
 Mark Neal MN Interim Head of Estates  
 Clive Natrass CN CEO, CEF  
 Marcus Ballard MBa Project Manager, CEF

### In attendance

Jessica Tobias JT Executive Assistant (minute taker)

Apologies: Mike Cooke MC Vital Energi  
 Gary Welch GW Head of Procurement

### ACTION

1.	<b>Introductions and Apologies</b> As above.	
2.	<b>Terms of Reference</b> The terms of reference for the group were updated with Mark Mansfield now being the project chair and sponsor.	
3.	<b>Trust Update Report</b> Mark Bristow provided a report to provide an update on the project that will be circulated at the Trust Management Executive. This report was presented to the Project Board, please see appendix 1.  MM & MN to discuss potential extra resourcing from the Trust side.  MB to get an actual figure for the cost of the delay. Although this may be difficult to calculate AM will take this forward.	MN & MM MB AM
4.	<b>CEF Report</b> The report was presented from the CEF as, please see appendix 2.	
5.	<b>Trust attitude to risk and risk mitigation together with key risks and actions to address</b> This item was previously dealt with under items 3 & 4.	
6.	<b>Issues for Escalation</b> As provided in Trust Update Report. The energy pipe route around the WIMM building is proving difficult due to the University also undertaking their own project works around the site. The Trust might need to advise Vital Energi to move away from the site and come back at a later date (which will have additional project costs or we go through a process of closing the road. MN to speak to Lucy Darnell to try and work together on a joint solution.	MN

## Energy Centre Project Board Meeting

Minutes of the Energy Centre Project Board meeting held on Wednesday 23<sup>rd</sup> December at 10am in the OUH Trust Boardroom, Academic Centre, JR Site

Present: Mark Mansfield MM Executive Director of Finance & Procurement (Chair)  
 Claire Hennessy CH Senior Operational Estates Manager  
 Mark Bristow MB Project Manager  
 Edd Newton EN Head of Financial Planning & Technical  
 Mark Neal MN Interim Head of Estates  
 Marcus Ballard MBa Project Manager, CEF

### In attendance

Jessica Tobias JT Executive Assistant (minute taker)  
 Steve Black SB Account Development Manager, Vital Energi

Apologies: Mike Cooke MC Vital Energi  
 Gary Welch GW Head of Procurement  
 Gemma Boldon GB Finance Business Partner  
 Ashley Malin AM Vital Energi  
 Jane Edwards JE Procurement Manager

### ACTION

1.	<b>Introductions and Apologies</b> As above.	
2.	<b>Minutes of meeting held in October and November</b> The minutes were accepted as an accurate record of the meeting.	
3.	<b>Trust Update Report</b> MB presented the update report. There has been significant design progress – most of the energy shutdowns at the JR have already occurred. 70 percent of work is complete on the JR site and the remaining 30 percent delay is around the WIMM building. An additional Project Manager and Project Engagement Officer for the Trust will be brought in from 4 <sup>th</sup> January 2016 as additional resource.	
4.	<b>CEF Report</b> The report was presented from the CEF as, please see appendix 2.	
5.	<b>Issues for Escalation</b> The risk matrix is currently being reviewed. It is a difficult cost to calculate but the "cost of" the delay (including loss of savings) is approximately between £60,000 - £90,000 per month. There are three parts of this cost: preliminary costs, costs and overhead and most significantly, at £58,000, is the cost of finance.  The reasons for the delay were considered by the CEF to be:  <ul style="list-style-type: none"> <li>• Project resource – This reason for the risk has now been mitigated as an extra project manager and a project engagement officer have now been appointed.</li> <li>• Frailty of infrastructure – to install the new plant equipment certain upgrades need to be made to the infrastructure. CH stated that increase the generator capacity and replace the 500 with the 1500 transformer and put in a new LV panel. Increase the resilience with the BMS with OU, potential to partner up</li> </ul>	