

# **Annual Working Party Review – Minutes of Background Underfloor Heating – April 2015 to January 2016**

## **Barbican Underfloor Heating Working Party Meeting notes 13 April 2015 at 6:30pm**

### **Attendee**

Gareth Moore

Michael Bennett

Mick McGee

David Downing

Tim Macer

Sarah Bee

Renu Gupta

Garth Leder

Ted Reilly

Kate Wood

### **Organisation**

Chair – Barbican Residential Committee Chair &

Common Councillor For Cripplegate Ward

Barbican Estate Office

CoL Housing Property Services

CoL Housing Property Services

Resident

Resident

Resident

Resident

Resident

Resident

### **Minutes**

<b>Item</b>	<b>Key discussion &amp; action points</b>
<b>1</b>	<p><b>Review of Preceding Minutes</b></p> <p>Welcome from Chair, Gareth Moore, thanking residents and officers present.</p> <p>The Working Party was quorate.</p> <p>Minutes of last meeting were agreed with no changes.</p>
<b>2</b>	<p><b>Update on existing Cyclo Control system</b></p> <p>MM advised that the existing Cyclo Control system functioned as expected through to the close of the 2014/15 heating season, however he confirmed that the period when they would be maintained by UK Power Networks had now expired. MM remains in contact with personnel from UK Power Networks should further advice be required in the short term.</p> <p>TR enquired as to whether temperature drift over the lifetime of the thermostats was being monitored. MM confirmed that it was not. He further advised that the UFH thermostats had last been replaced approx. 15 years ago.</p>
<b>3</b>	<p><b>Temperature Monitoring Data</b></p> <p>TR confirmed that the temperature monitoring data had been collected and was safely stored. He further advised that this data could be used as we see fit as long as it was sufficiently anonymised.</p>
<b>4</b>	<p><b>Potential Environmental Control System</b></p> <p>Nottingham, Essex &amp; Reading Universities are collectively working on a large project investigating total environmental control within residential flats. A trial flat has already been specially constructed at a University of Essex site. The Research Group have requested permission to extend their trial to flats on the Barbican Estate. Furthermore, SB advised that EDF Energy R&amp;D UK Centre were potentially interested in supporting this project.</p> <p>Early discussion indicates that trials would (following approval) be conducted in potentially five flats (comprised of different flat types and different resident profiles &amp; demands) with any</p>

Item	Key discussion & action points
	<p>equipment required to be in place for the start of the next heating season. The potential to power the underfloor heating mats from the normal domestic supply was raised; MM raised no objection to investigating this further at this time.</p> <p>It was confirmed that if this project were to become active on the Barbican Estate there are to be no service charge implications or disruption to other residents' normal enjoyment of the Estate. Furthermore, any alterations or installations must be compliant with Listed Building guidelines. The CoL would also require sight of the Research Groups insurance policy before any consent would be granted.</p> <p>With these concerns noted, Resident Members of the Working Party were in agreement to continue to maintain an interest in supporting this research proposal at this time. The Working Party have supplied a signed letter of support for the project's funding application. It was also agreed that SB could progress dialogue/discussion between EDF Energy R&amp;D UK Centre and the Research Group.</p> <p>The Working Party will await the decision on the Research Group's grant application. The submission to the awarding body is expected by the end of this month.</p>
5	<p><b>Energy Efficiency Measures &amp; Promotion</b></p> <p>CoL officers' investigation of energy efficiency measures is ongoing. Update to follow when available.</p>
6	<p><b>Consultants Brief &amp; Appointment Process</b></p> <p>Following confirmation that potential applicants would be expected to contact the BEO for further information before submitting a bid, it was agreed that the consultants brief could be sent out without further Working Party review. GM advised that the decision on who to appoint would fall to the appropriate CoL officers only as the consultant's fee was deemed non-service chargeable.</p> <p>The brief will be sent to prospective consultants on 1<sup>st</sup> May with a response date for submissions set for 25<sup>th</sup> May. Once appointed, the consultant would have three months to complete their report; receipt of which would therefore be expected by the end of August. Upon receipt, a further period of one month will be allowed to CoL officers for evaluation. The Working Party will be updated as appropriate throughout this process.</p> <p>Post Meeting Note: Suggested consultants to approach for the fee tender have been provided following consultation with the Advisory Group.</p>
7	<p><b>AOB</b></p> <p>None raised.</p>

## Barbican Underfloor Heating Working Party Meeting notes

### 16 June 2015 at 6:30pm

#### Attendee

Gareth Moore

Michael Bennett

Mike Saunders

Mick McGee

David Downing

Tim Macer

Sarah Bee

#### Organisation

Chair – Barbican Residential Committee Chair & Common Councillor For Cripplegate Ward

Barbican Estate Office

CoL Housing Property Services

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CoL Housing Property Services

Resident

Resident

**Attendee**

Renu Gupta  
 Garth Leder  
 Ted Reilly  
 Kate Wood  
 Mary Hickman

**Organisation**

Resident  
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**Minutes**

<b>Item</b>	<b>Key discussion &amp; action points</b>
<b>1</b>	<p><b>Review of Preceding Minutes</b></p> <p>Welcome from Chair, Gareth Moore, thanking residents and officers present.</p> <p>The Working Party was quorate.</p> <p>Minutes of last meeting were agreed with minor changes.</p>
<b>2</b>	<p><b>Environmental Control System Research Proposal</b></p> <p>TR advised that the universities research proposal was expected to be submitted shortly. GM, TM and MB confirmed that they each had supplied letters of support for this proposal. A decision on any award of funding is not anticipated for several months; it is therefore unlikely that anything will be in place before the start of the forthcoming heating season.</p>
<b>3</b>	<p><b>Energy Efficiency Measures &amp; Promotion</b></p> <p>Recommendations on potential structural energy efficiency measures are expected shortly and will be circulated once available. It was noted that the Estates Listing would likely be the biggest constraint on any measures that could be employed, however the Working Party agreed that all potential energy efficiency measures should be considered at this point; Listed Building Consent could be sought to implement desirable measures if required.</p> <p><b>ACTION 1</b> – MS to advise on timescales for receipt of recommendations and ensure that those received are not excluding measures from consideration purely because they would require Listed Building Consent (commissioning extra work to cover this – at no cost to residents - if required).</p> <p>In addition to consideration of structural measures, it was agreed that Resident Members (in conjunction with the wider advisory board) would pool and collate ideas for smaller scale energy efficiency measures.</p> <p><b>ACTION 2</b> – Resident members collated ideas to be sent to CoL officers for assessment by Friday 26<sup>th</sup> June. Officers comments to be added by Friday 10<sup>th</sup> July.</p> <p>It was agreed that, once compiled and assessed, appropriate energy efficiency measures could be promoted to the Estate at large via email broadcast, followed by a note enclosed with the September service charge.</p> <p>TR queried the potential to vary ventilation within blocks or particular staircases to improve energy efficiency. It was confirmed that any experimental sealing or variation in ventilation would require the support of all residents affected in that location.</p> <p><b>ACTION 3</b> – Resident Members to discuss with wider advisory group and advise, should an appetite to pursue this arise, on locations and measures agreed with appropriate residents.</p>

Item	Key discussion & action points
<b>4</b>	<p><b>Consultants Brief &amp; Appointment Process</b></p> <p>MS advised that the consultants brief was sent out to three firms (one of which nominated by the wider advisory group); two of these elected to submit bids for the tender. MS &amp; MM have met with the lowest bidder and can confirm that the consultancy have a full understanding of our requirements. The contract will therefore be awarded, hopefully by the end of the week, with receipt of the report expected three months later. MS further commented that the consultants to be employed already have good working knowledge of the Barbican Estate having been involved in several previous projects.</p> <p>It is intended to circulate the report to Working Party members ahead of the next meeting (to be rescheduled) at which the consultants will be in attendance to address members' questions.</p> <p>As the existing Cyclo Control system will no longer be actively maintained by UK Power Networks, MM advised that time clocks would be installed as a back-up measure in each block ahead of the forthcoming heating season. These would ensure service provision in the unlikely event the Cyclo Controls fail in the interim period.</p>
<b>5</b>	<p><b>AOB</b></p> <p>Next meeting to be rescheduled to allow prior review of consultant's report as per Item 4.</p> <p><b>ACTION</b> - DD to circulate revised date ASAP.</p>

## Barbican Underfloor Heating Working Party Meeting notes 19 October 2015 at 6:30pm

### Attendee

Gareth Moore

Michael Bennett

Mike Saunders

Mick McGee

David Downing

Russell Banks

Tim Macer

Sarah Bee

Renu Gupta

Garth Leder

Ted Reilly

Mary Hickman

### Organisation

Chair – Barbican Residential Committee Chair &

Common Councillor For Cripplegate Ward

Barbican Estate Office

CoL Housing Property Services

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Concero Ltd

Resident

Resident

Resident

Resident

Resident

Resident

### Minutes

Item	Key discussion & action points
<b>1</b>	<p><b>Review of Preceding Minutes</b></p> <p>Welcome from Chair, Gareth Moore, thanking residents and officers present. Russell Banks (RB) from Concero Ltd was present to discuss the consultant's report.</p> <p>The Working Party was quorate.</p>

Item	Key discussion & action points
	<p>Minutes of last meeting were agreed with no changes.</p>
2	<p><b>Opportunity for City of London to learn from Westminster City Council</b></p> <p>The Working Party were informed that Westminster City Council had recently been through a similar exercise whereby existing Cyclo Controls within a number of their larger properties had had to be replaced as a result of the termination of support agreements. RB advised that Westminster had installed low power transmitters (supplied by Energy Assets) into a number of their tower blocks; it was noted that the replacement was successful albeit potentially expensive.</p> <p>The Working Party agreed that there was value in consulting directly with Westminster with Resident Members keen to be involved in any discussion.</p> <p><b>ACTION</b> – It was agreed that RB would initiate dialogue with Concero’s contact at Westminster and try to arrange a meeting &amp; secure access to relevant materials. RB to update Working Party via MS with progress.</p>
3	<p><b>Consultant’s Report: “Underfloor Heating, Cyclo Control Future Options Scope Study Report”</b></p> <p>The Concero report was presented to the Working Party by RB, followed by a Q&amp;A session.</p> <p>RB advised that UK Power Networks had confirmed to Concero that they would do their best to support the existing Cyclo Controls through to the end of the current heating season. This offer of limited support would only be extended into the next heating season if a clear pathway is in place to demonstrate a commitment to a planned migration to modern equivalent technology. Any call out during this time may be chargeable.</p> <p>Q – <i>Energy Assets (ZigBee)</i>. Could the ZigBee solution be deployed in a phased programme?  A – RB advised that initially Load Switches only could be fitted. Individual flat metering could be installed at a later date if desired.</p> <p>Q – <i>Energy Assets (ZigBee)</i>. Please clarify the mechanisms by which surplus load could be sold back to the National grid.  A – <b>ACTION 1</b> – RB to investigate and report back.</p> <p>Q – <i>Energy Assets (ZigBee)</i>. How well will the wireless network function in the concrete &amp; steel structure of the Barbican Estate?  A – <b>ACTION 2</b> – RB to investigate and report back.</p> <p>Q – <i>Schneider Electric</i>. Is it concerning that Schneider Electric were unwilling to indicate the likely cost of full deployment for all potential phases of StruxureWare?  A – RB advised that Concero had the impression that Schneider were looking for a more concrete indication of interest before investing the significant time to do the comprehensive survey required to estimate costs for all phases. It was also pointed out that as StruxureWare technology and installation is readily available on the open market, any contract to supply would have to be fully tendered to ensure value for money.</p> <p><b>ACTION 3</b> – RB to return to Schneider Electric for more costing information on later phases of a StruxureWare deployment.</p> <p><b>ACTION 4</b> – RB to approach alternative suppliers/installers of StruxureWare for costing information.</p>

Item	Key discussion & action points
	<p>Q – <i>Schneider Electric</i>. Would StruxureWare Phase 1 be considered a like for like replacement of the existing system?  A – Yes, it would be the replacement of obsolete unmaintainable equipment with a modern equivalent that fulfils the same function.</p> <p>Q – <i>Schneider Electric</i>. Would StruxureWare Phase 1 therefore replicate the current heating situation i.e. some flats too warm, some too cold?  A – Initially yes, but benchmarking and monitoring (provision for which should be included in the tender) would allow this to be rectified over time.</p> <p>Q – <i>V-Charge</i>. Is the Ethernet cabling to each flat necessary? The £100,000 connection charge estimated seems very high when the VFM network is largely in place?  A – RB advised that the VFM fibre network was only in place to the flat door for those residents who had subscribed to VFM services.</p> <p>Q – <i>V-Charge</i>. Could an aggregate node be used in the basement of each block/staircase rather than the expense of installing the V-Charge equipment adjacent to each trimmer?  A – <b>ACTION 3</b> – RB to investigate and report back.</p> <p>Q – <i>V-Charge</i>. Would the V-Charge solution work on an opt in/opt out flat by flat basis?  A – <b>ACTION 4</b> – RB to investigate and report back.</p> <p>Q – <i>General</i>. Is there any risk of leaving flats without any form of heating if there prove to be any issues during implementation?  A – The specification prescribed during the tender process would require implementation &amp; testing to be done outside of the heating season.</p> <p>Q – <i>General</i>. What if unforeseen issues cause the planned implementation to overrun into the heating season?  A – MM advised that a simple local switch could be fitted for each affected flat (which would need to be switched on &amp; off manually). Residents would not be left without heat.</p> <p>Q – <i>General</i>. Other than the Cyclo Controls, what other services do the BEO run through the current BMS?  A – MM advised that no other services for the Barbican Estate are run through the current BMS. Installing an independent BMS network should therefore not be an issue.</p> <p><b>Next Steps:</b></p> <p>GM advised the Working Party that a direct steer is required from residents (via the Resident Members of the Working Party &amp; the wider Advisory Group) to inform the preparation of tender documents. He reminded the Working Party that the landlord has only the obligation to provide a like for like replacement of the existing service; a replacement of obsolete parts with modern (potentially scalable) equivalents being acceptable.</p> <p><b>ACTION 5</b> – It was agreed that RB would answer all outstanding (and any new) queries on the consultant’s report by the end of October. Responses to be sent to MS who will forward to TM for wider distribution. Any new queries for RB to be sent to MS for forwarding.</p> <p>It was agreed that Resident Members would share the consultant’s report with the wider Advisory Group &amp; schedule a residents only meeting in early November to reach agreement on the steerage to be presented to CoL Officers at the December meeting of the full Working Party. Tender documents would then be prepared for mid-January &amp; potentially signed off as a matter of urgency by BRC Chair if committee meeting cycle not appropriate.</p>

Item	Key discussion & action points
4	AOB  None raised
5	Next Meeting  It was agreed that due to a number of key members of the Working Party begin unable to attend the next meeting arranged for 8 <sup>th</sup> December that this meeting should be rescheduled elsewhere within the w/c 7 <sup>th</sup> December.  <b>ACTION</b> – DD to poll availability for w/c 7 <sup>th</sup> December and update Working Party.

## Barbican Underfloor Heating Working Party Meeting 1<sup>st</sup> December 2015 at 6:30pm

### Attendee

Garth Leder  
Michael Bennett  
Mike Saunders  
Mick McGee  
David Downing  
Danielle Baker-Wilson  
Chris Sedgwick  
Mary Hickman  
Renu Gupta  
Tim Macer  
Sarah Bee  
Ted Reilly  
Kate Wood

### Organisation

Chair – Resident  
Barbican Estate Office  
CoL Housing Property Services  
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CoL Housing Property Services  
Resident  
Resident  
Resident  
Resident  
Resident  
Resident

### Minutes

Item	Key discussion & action points	Who
1	<b>Review of preceding minutes</b>  Welcome from Chair, Garth Leder. Round table of introductions.  The Working party was quorate.  Apologies were received from Gareth Moore.  Minutes of last Working party Meeting were agreed with no changes.	
2	<b>Update from meeting with Westminster City Council</b>  Minutes from the meeting with David Wickersham (DW) from Westminster City Council were circulated. The Working Party raised the following questions:  (1) How does National Grid operate switching on/off the loads? i.e. Who/what decides when to switch and if it is National Grid, how would Barbican integrate with that? (2) At what times (on average) would they expect a switch? Is there a chance that Barbican on/off times will not often coincide?	

Item	Key discussion & action points	Who
	<p>(3) Confirmation of the rate Westminster currently pays.</p> <p><b>ACTION 1</b> – MS to pass questions to Concero.</p>	MS
3	<p><b>Review of clarifications received from V-Charge &amp; Schneider Electric</b></p> <p>The Working Party expressed concerns that the Schneider option seems very expensive (an estimated £1m for phases 2-4), and that the V-Charge solution is effectively signing away the future. Resident members agreed that V-Charge option should be disregarded at this stage.</p> <p>The resident members also strongly advised that the reliability of any given solution must be a critical part of the tender process.</p> <p>SB informed the Working Party that a company called Red-M had previously collected measurements from her apartment as part of wider testing utilising Zigbee equipment, although she was unsure if the report was ever made available.</p> <p><b>ACTION 2</b> – SB to email Red-M Zigbee information to MM.</p>	SB
4	<p><b>Update from residents on consultant's report: "Underfloor Heating, Cyclo Control Future Options Scope Study Report"</b></p> <p>It was advised that agenda item 4 referred specifically to the need for a steer from residents on the Tender Document.</p> <p>MS advised that the WP should for now focus on controls. The meeting with DW from Westminster focused more on Energy Provision/Efficiency and this could be a separate project altogether.</p> <p>It was agreed by residents that on the controls side, a system should be chosen that leaves the option to feedback to the National Grid in the future open. This option needs to be explored in parallel.</p> <p><b>ACTION 3 A)</b> Officers to obtain contact details for Neil Rowley (National Grid) directly from David Wickersham, rather than going through Concero. <b>B)</b> Speak to National Grid about what would be necessary for the Load switching and the options for grid balancing.</p> <p>It was advised by SB that it was important to confirm that Barbican owned the data produced by a given control system, as in the future they may wish to use this data to prove past usage in negotiations with suppliers.</p> <p><b>ACTION 4</b> – Confirm with Concero if the data legally belongs to the Barbican Estate.</p> <p>RG expressed the need for a heating system that is more sophisticated in its decision of when to switch on/off, based perhaps on a learning profile rather than an experiential model. A requirement to have a temperature forecast of at least 2 days in order to allow more intelligent switching was suggested.</p> <p><b>ACTION 5</b> – MS to investigate the feasibility of hiring a consultant independently from the City to explore the grid balancing potential and to assess any potential saving for the Barbican Estate in negotiating its own electricity supply contract.</p> <p>SB noted that it may be possible to use a Third Party Intermediary (TPI), who (similar to an insurance broker) would shop around on Barbicans behalf. If a TPI is</p>	<p>MS/MM</p> <p>MS</p> <p>MS</p>



<b>Item</b>	<b>Key discussion &amp; action points</b>	<b>Who</b>
	<p>used, a quote can be provided free of charge.</p> <p>It was noted by MS that if the energy supplier is changed and Barbican leaves the corporate contract, it would be necessary to go through a Section 20.</p>	
<b>5</b>	<p><b>Next Steps</b></p> <p>The work stream was broken into two separate issues, which will be treated separately.</p> <p>(1) Control Side (2) Energy Provision/Grid Balancing side</p> <p>Regarding (1), it was agreed to stay to the time scale previously agreed. Therefore the Tender Document is required by Mid-January in order to be ready for next years' heating season. Talks around integrating the hot water load will be suspended, as it is deemed out of the scope (timeline and budget) of this issue.</p> <p>Regarding (2) it was agreed that conversations need to start between us, David Wickersham and National Grid. (Action 3 above)</p>	
<b>6</b>	<p><b>AOB</b></p> <p>None raised</p>	
<b>7</b>	<p><b>Next Meeting</b></p> <p>It was agreed that the next Working Party Meeting will be held in mid-late January 2016.</p> <p><b>Action 9 – DBW to poll availability for mid-late January.</b></p>	<b>DBW</b>

## Barbican Underfloor Heating Working Party Meeting 26<sup>st</sup> January 2016 at 6:30pm

### Attendee

Gareth Moore

Michael Bennett

Mike Saunders

Mick McGee

Danielle Baker-Wilson

Mary Hickman

Tim Macer

Sarah Bee

Ted Reilly

Garth Leder

### Organisation

Chair - Barbican Residential Committee Chair &  
Common Councillor For Cripplegate Ward

Barbican Estate Office

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Resident

Resident

Resident

Resident

Resident

### Minutes

<b>Item</b>	<b>Key discussion &amp; action points</b>	<b>Who</b>
<b>1</b>	<p><b>Review of preceding minutes</b></p> <p>Welcome from Chair, Gareth Moore.</p>	

Item	Key discussion & action points	Who
	<p>The Working party was quorate.</p> <p>Minutes of last Working party Meeting were agreed with no changes.</p>	
2	<p><b>Update from Concero on questions raised following meeting with Westminster Council</b></p> <p>It was noted that Concero are still awaiting feedback from David Wickersham from Westminster council.</p> <p>Clarification of the V-Charge proposal was received and acknowledged by members of the party. It was agreed that they are now better informed for when V-Charge eventually submit a tender.</p>	
3	<p><b>Update on the status of communications with National Grid.</b></p> <p>It was explained that contact has been made with the Senior Account Manager from National Grid, Rebecca Yang. (Neil Rowley has moved on to another role). She has expressed an interest in discussing the opportunity at the Barbican and has offered to meet the City to discuss potentialities further at their Warwick or Wokingham offices.</p> <p>It was agreed that this meeting should ideally take place in Mid / Late February at their Wokingham Offices.</p> <p><b>Possible dates:</b> Week beginning 15/02 or week beginning 22/02.</p> <p><b>Attendees:</b> Mick McGee, Mike Saunders, Concero, Garth Leder, Tim Macer / Ted Reilly (date depending).</p> <p><b>Deadline of 8/9 February for:</b></p> <ul style="list-style-type: none"> <li>– Finding out availability of both Rebecca yang and Barbican/City Attendees for proposed dates (above).</li> <li>– Deciding on and collating necessary supporting documentation to take to the meeting.</li> </ul> <p><b>Action 1: DBW to confirm availability of Rebecca Yang from National Grid and attendees to set date for future meeting. Also to collate necessary supporting documentation to take to the meeting.</b></p>	DBW
4	<p><b>Update on the feasibility of hiring a consultant independently from the city.</b></p> <p>It was noted that Concero have expressed an interest in negotiating this contract on the Barbicans behalf. However it was questioned by the party whether it's efficient to pay a consultant to speak to a broker rather than speaking to the broker directly.</p> <p>It was decided that it is necessary to talk to Paul Kennedy's replacement (Corporate Energy Manager). Mick McGee will open up a line of communication about the upcoming renegotiations taking place at the end of the next heating season. The aim is to explain the status of the WP meetings and the direction the party would like to go with these renegotiations. Ideally the new Corporate Energy Manager should attend the upcoming UFH WP meeting to get a better feel first-hand of the situation in order to jointly come up with a way forward.</p> <p><b>Action 2: MM to contact Paul Kennedy's replacement to open up a dialogue.</b></p>	

Item	Key discussion & action points	Who
		MM
5	<p><b>Next Steps</b></p> <p>MM/MS to talk to Concero about the status of the technical solution / tender document for the control side.</p> <p><b>Action 3: MM and Concero to liaise to produce the Technical Specification by the end of February.</b></p> <p>Concerns were expressed regarding the timeline of the proposed solution (due for October Go-Live).</p> <p>Agreed that the project timeline should be included in these minutes, working backward from the go-live date.</p> <p><b>Action 4: Create project timeline for the Cyclo control installation, taking into account the go live date at the start of the next heating season (October 2016).</b></p>	<p>MM/ MS</p> <p>MS/ MM/ DBW</p>
6	<p><b>AOB</b></p> <p><b>Timeline / Project Plan:</b></p> <pre> graph LR     subgraph Timeline [Timeline / Project Plan]         direction LR         Feb[Feb] --- Mar[Mar] --- Apr[Apr] --- May[May] --- Jun[Jun] --- Jul[Jul] --- Aug[Aug] --- Sep[Sep] --- Oct[Oct]     end     Feb --&gt; TS[Technical Specification]     Apr --&gt; Tender[Tender]     Jul --&gt; WS[Work Starts]     Sep --&gt; WE[Work Ends]     Oct --&gt; GL[Go Live] </pre>	
7	<p><b>Next Meeting</b></p> <p>Dates for the next four meetings:</p> <p>12/04/16 at 18:30  14/06/16 at 18:30  13/09/16 at 18:30  06/12/16 at 18:30</p>	