

5th June 2018

Renewables Grid Liaison Group

Minutes of Meeting No25

Attendees	
Utility Regulator	Tanya Hedley (TH) Jody O'Boyle (JO'B) Aidan Girvan (AG)
NIRIG	Meabh Cormacain (MC) Rory Mullan (RM)
NIE Networks	Brian Moorhead (BM) David McDonald (DMcD) Amy Hamilton (AH) Sinead Ferris (SF) Stephen Hammond (SH) Lisa O'Neill (LO'N) Ian Craig (IC) David Hill (DH)
SONI	Helen Gallagher (HG) Louis Fisher (LF) Ronan Kernan (RK) Raymond Smyth (RS)
Department for the Economy - Energy Decarbonisation Division	Joe Reynolds (JR) Kelly McKenna (KMck)
NISTA	No attendee
Offshore Representative	No attendee
Ulster Farmers Union	Chris Osbourne (CO)
Energy Storage Representative	No attendee
DP Energy	No attendee
Energia	Ciaran Donnelly (CD)
Amber Green Energy	Neil O'Brien (NO'B)
Apologies	Kieran O'Malley Gary Hawkes

No	Item	Action
1	Apologies	
2	<p>Minutes/Updates from last meeting</p> <p>Minutes agreed for publication.</p> <p>Actions from previous meeting</p> <p><u>Action 1</u> Circulate presentation slides from the 24th RGLG meeting to the RGLG mailing list</p> <p><i>Complete</i></p> <p><u>Action 2</u> Present on the changes being introduced to NI due to the adoption of G98 and G99 standards once the new processes are implemented in D Code</p> <p>DMcD stated that this presentation shall be given once the new processes are implemented in D Code. This may be completed at the next RGLG meeting.</p> <p><i>Not Complete</i></p> <p><u>Action 3</u> Forward a link to the Distribution Contestability Guidelines to the RGLG mailing list once published</p> <p><i>Complete</i></p> <p><u>Action 4</u> Update on the three possible methods of delivery for RoCoF changes</p> <p>DH stated that this would be presented on during the meeting under agenda item 11 – RoCoF Update.</p> <p><i>Complete</i></p> <p><u>Action 5</u> Forward a dummy copy of a SCADA Enforcement Notice to the RGLG mailing list</p> <p><i>Complete</i></p> <p><u>Action 6</u> Produce a written FAQ/ATR report based on the slides presented at the 23rd RGLG meeting</p> <p>HG stated that this would be presented on during the meeting under agenda item 9 – Network Development/ATR Update</p> <p><i>Complete</i></p> <p><u>Action 7</u> Provide a list of representatives on the Hybrid Working Group to the RGLG mailing list</p> <p><i>Complete</i></p>	

No	Item	Action
	<p>Action 8 Place a note on the UR website to announce the existence of the RGLG group and invite interested parties to attend</p> <p>TH stated that this had been completed and would be discussed under agenda item 12 – Response to request for new membership</p> <p><i>Complete</i></p> <p>Action 9 Provide the UR with a contact within the Department who is responsible for ESQCR</p> <p><i>Complete</i></p> <p>Action 10 Provide a new department organisational structure</p> <p><i>Complete</i></p>	
3	<p>Renewables Status Update</p> <p>BM gave a presentation accompanied by slides. The figures presented were collated for the 31st March 2018 and a new set of figures are to be aggregated soon. The two figure sets will not be remarkably different excluding a large increase in connected generation by the end of June due to Drumquin Cluster coming online on 7th June 2018. c1554 MW of renewable generation has been connected as of 31st March 2018. c1792 MW of renewable generation is connected and committed to connect. Kells Cluster has been designated and is attracting high interest. This will add 90 MW to the total committed generation. Connected and committed levels of generation are approaching the 1800 MW maximum load figure. There is 150 MW of remaining cluster capacity which is attracting interest from generators. BM explained that the “Cluster update 31 March 2018” slide was intended as a guide for developers to give an indication of where there is remaining capacity at cluster substations. There is around 180 MW of uncommitted applications seeking to connect to Kells Cluster. Uncommitted applications have also been submitted for capacity at Drumquin Cluster, Gort Cluster and Tremoge Cluster.</p>	
4	<p>Consultation Update</p> <p>LO’N gave an update accompanied by slides. The <i>Distribution Generation Connection Application and Offer Process</i> was published on the 4th May 2018. There were 15 responses from industry to the consultation; including one response from a small scale generator and one from a manufacturer of smart technology. A two stage decision was implemented to allow distribution generation applications to be put out to offer faster as the second decision paper regarding the connection of further generation required additional legal review.</p> <p>The Distribution Generation Offer and Application Process was dealt with in sections 5.2 to 5.4 of the consultation. This was an NIE Networks only section. LO’N summarised the 15 responses to this section</p> <ul style="list-style-type: none"> • 91% agreed with introducing Phase 1 Planning Approval Milestones 	

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	<ul style="list-style-type: none"> • 67% believed the Phase 1 Planning Approval Milestone should be brought forward to the Acceptance stage • No respondents felt that the milestone should be placed post-acceptance i.e. after the 180 days proposed • All but one agreed that extensions should not be given for this milestone unless the application has been through an appeal hearing and is awaiting a decision • 71% agreed that the introduction of Phase 2 milestones would be too onerous due to uncertainty in the market • Capacity hoarding was recognised as an issue that respondents were keen to discourage and capacity should be revoked eventually if non-compliance with connection policy persists • Longstop dates were suggested as an alternative to Phase 2 Milestones. Some respondents suggested two years while others proposed three years. There was no consensus concerning timelines <p>LO'N summarised the <i>Decision Paper on Distribution Generation Connection Application and Offer Process</i></p> <ul style="list-style-type: none"> • As of 17:00 on 18th May 2018, generation queue position for new applicants is determined by the date and time at which their application is deemed valid. No priority is given to applications with planning permission • Those with planning permission prior to this had their queue position frozen • The Phase 1 Planning Approval Milestone was implemented due to huge support from industry and is 120 days from the date of Terms letter. • NIE Networks felt it was better to make this an individual milestone rather than part of the Acceptance Process as suggested by industry • Applicants cannot be granted an extension unless the project is undergoing a judicial review; in which case the milestone is taken as being completed • The Longstop Milestone is 24 months after the Scheduled Completion Date. Extensions may be granted in the case of force majeure • 24 months was chosen as SONI have a clause of 5 years from the date of Terms Letter and transmission connections can be more complicated than distribution connections • The Utilisation Milestone details when the generating plant must be commissioned by • The Utilisation Milestone for new/modified export/zero export/over installs is 24 months from the date connection works are completed • The Utilisation Milestone for offers with supply adequate is 24 months from the date of Terms Letter <p>LO'N summarised the slides on <i>Connecting Further Generation in Northern Ireland, Next Steps</i>.</p> <ul style="list-style-type: none"> • Regarding the forecast statement further information request, respondents suggested including ATRs to make connected and 	

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	<p>committed generation firm with timelines and to update the constraints analysis in conjunction with industry</p> <ul style="list-style-type: none"> • NIE Networks had asked industry whether they would like queue information to be shared. A large number of respondents were in favour of the mandatory disclosure of generation information • Further consultation on sharing of queue information should be undertaken by the body that has the power to approve the information to be disclosed • SONI share information on the transmission queue through the Connections Register as a requirement of Grid Code • Respondents recognised that sharing the distribution queue is outside of the control of NIE Networks • Prioritisation is not necessary for DS3 as there is no batch process in place • Respondents highlighted concerns over technology discrimination • Consideration should be given to how offers can be made to enable new entrants to access the DS3 tender process • Respondents were concerned that zero FAQ offers could decrease the viability of existing committed generators without full FAQ and suggested that zero FAQ offers may not be commercially viable for all technologies • There was large support for the formation of the Connection Innovation Working Group (CIWG), and a number of respondents put their names forward to be members • More information was required on the potential levels of capacity that could be released by an Active Network Management (ANM) scheme • ANM scheme trials should be funded by an innovation price control allowance • Respondents were strongly in favour of having planning permission as a pre-requisite for a generation application and that changes in legislation should be undertaken to allow this • Respondents believe the NIAUR should be granted additional powers to set connection policy • Many respondents encouraged NIE Networks, SONI, NIAUR and the DfE to work together to facilitate network reinforcement • Some respondents asked NIE Networks to outline their proposals for facilitating rebates • A small number of respondents believe the cluster policy should be reviewed due to the changing commercial environment but others stated that the current policy worked well <p>HG summarised the next steps relating to the further information request</p> <ul style="list-style-type: none"> • Updated ATRs are to be published on the SONI website and will continue to be announced through the RGLG forum • SONI will publish a note on their website to explain how best to use the different sources of information provided by SONI and shall rearrange their website to give the different data sources greater cohesion <p>LO'N summarised the next steps relating to sharing queue information</p>	

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	<ul style="list-style-type: none"> • NIE Networks agree that further consultation should be carried out on the sharing of queue information by the body capable of implementing the change required • NIE Networks will put in suggestions on the level of detail and the policies of Eirgrid and ESB regarding information sharing <p>MC enquired which body would be most relevant to carry out the consultation and implement the changes. LO’N responded that NIE Networks was currently investigating whether the DfE or the UR would be the most relevant body. MC enquired if it was likely this consultation would be carried out by the DfE and changes implemented without an Executive. JR stated that the DfE is awaiting the outcome of the appeal in the Buick case which should provide some clarity in relation to the decisions that can be made by civil servants in the absence of an Executive.</p> <p>HG summarised the next steps concerning DS3 and the CIWG</p> <ul style="list-style-type: none"> • There is a lack of capacity in the network and any available capacity is locational which limits where prioritisation could be implemented • There is no DS3 batch process to enable prioritisation and no plan to change the connection process • A high level Terms of Reference has been produced for the CIWG • The aim of the working group is to consider and as appropriate, progress solutions that facilitate connection of further distributed energy resources that are technically and commercially viable for all parties involved • To aid the discussion around the working group, SONI will carry out indicative constraint analyses looking at incremental blocks of RES connected e.g. another 50 – 150 and conduct studies on their increasing impacts on the system in terms of constraints. This is to support the discussion on when a technology ceases to be commercially viable for industry • The anticipated deliverables include: <ol style="list-style-type: none"> 1. Potential development of new connection policy to enable zero FAQ distribution connection offers 2. Development of scope for further investigation of smart schemes such as ANM • Membership would be made up of representatives from NIE Networks, SONI, the UR, the DfE and industry using a similar nomination process to the Hybrid Site Working Group • The first meeting shall be held at the start of September to allow time for the SONI analysis to be conducted on constraints and curtailments and to allow the nomination process for membership to take place <p>LO’N summarised what was not included in the consultation</p> <ul style="list-style-type: none"> • The UR have written to the DfE describing stakeholder views on rebates and are open to engagement • NIE Networks and SONI have expressed their willingness to engage on the issue 	

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	<ul style="list-style-type: none"> • NIE Networks has noted the support from stakeholders for the current cluster methodology and will consider a review of the policy if capacity becomes available through traditional reinforcement or the work of the CIWG • There is currently no capacity for the designation of further clusters • NIE Networks and SONI cannot introduce planning permission as a pre-requisite to generation application without amendment to primary legislation • NIE Networks and SONI would formally like to pass on the industry view to both DfE and UR that planning permission should be a pre-requisite for application of a generation connection for their consideration <p>HG summarised further points on network reinforcement</p> <ul style="list-style-type: none"> • In conjunction with NIE Networks; SONI will continue to submit options for network reinforcement to the UR accompanied by cost benefit analysis reports for carrying out the reinforcement in line with UR guidance published in March 2018 • The UR have previously indicated that network reinforcement purely for generation shall have its cost benefit analysis considered in line with current NI energy policy • NIE Networks shall bring forward any construction/capital approvals to the UR <p>LO'N confirmed that the <i>Connecting Further Generation in NI, Next Steps Paper</i> will be published by the end of June 2018.</p> <p>RM asked if more ATRs, beyond those already designated, are needed to make currently connected and committed generation firm. RS stated that the Tremoge circuit was very close to overloading which is what would cause many wind farms to be non-firm. Even with the second Kells-Rasharkin circuit, these connections may still be non-firm. Connections are assessed deterministically. When it comes to planning, SONI will consider the probability of the risk. SONI will not bring a project forward unless they consider it to be value for money. SONI must evaluate the risk and consider whether to seek derogation from their licence standard to avoid reinforcement or to bring a project forward to address the risk. Pre-construction for a project could include identifying a corridor and constraint mapping. SONI will engage with the UR and the DfE on this to make further progress in autumn.</p> <p>RM asked how generators that require additional ATRs to become firm can understand what is required for their capacity to be made firm. RS stated that the capacity can be made firm by a reinforcement project – which can take a long time, or else it is decided that the risk making the capacity non-firm is low and there is a pathway for disassociation i.e. the investment is not value for money and the generators are made firm as a result. It must be decided if accepting the risk or undertaking reinforcement work is within the best interests for all consumers in Northern Ireland. RM stated that some generators got connection offers between 2010 and 2012 and still have not been made firm. RS stated that SONI could submit a request to the UR for pre-construction</p>	

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	<p>investment. If the UR decides that this investment is not worthwhile, they can grant SONI derogation from their licence standards. If this occurred, SONI would be obliged to disassociate the non-firm connections from this ATR. RM stated that customers would appreciate this methodology written down on paper. RS stated that the matter would be brought to a conclusion soon.</p> <p>MC stated that cost benefit analysis must be carried out in line with government policy. Under the Strategic Energy Framework, there is a requirement for an electricity grid that can accommodate an increasingly decarbonised energy sector post 2020. Does the cost benefit analysis look at the Strategic Energy Framework as a whole when considering transmission reinforcement to ensure government policy is adhered to beyond 2020? TH responded that the UR does take current policy into account when looking at cost benefit analyses. There has not been anything submitted by SONI or NIE Networks that has not been approved by the UR. NIE Networks and SONI must satisfy themselves that they can justify their submission.</p> <p>JR stated that the R21 judgement constrains what the Department can do. Not having a Minister means that options for a new policy cannot be developed as this must be done under the leadership of a Minister. However the Department is doing work at a European level and a UK level such as the Clean Growth Strategy. This is designed for England and Wales, but will have a wash over impact on Northern Ireland. MC stated that the Department is currently restricted and must meet objectives set by current policy rather than develop new policy in the absence of a Minister; but the objective for a decarbonised grid is already set in current policy.</p>	
5	<p>DfE – General Update</p> <p>JR stated that Northern Ireland currently does not have an Executive at Stormont. Work is being overshadowed by Brexit and the RHI Inquiry. JR joined the Department 3 months ago, and since then a number of new colleagues have joined the Department, with more due to join by the end of the summer. The Department is looking to redo work previously completed over the last few years on strategy. Some of this work needs to be renewed in the context of the Energy Framework, which was designed to run until 2020. Substantial progress was made with one significant numerical target with less progress being made towards the second target. Subject to the outcome of a June council meeting in Europe, more work shall be completed on developing implementation strategy for the Clean Energy Package. The Department is relating this work to events in Westminster including the Clean Go Strategy. The Clean Go Strategy is primarily focussed on economic development rather than energy and decarbonisation. MC enquired what actions are being taken as evidence of the strategy review. JR responded that the Department would gather information on the current situation in Northern Ireland regarding connected generation, committed generation and demand in the next several months, subject to the summer break. The Department shall also engage with key stakeholders regarding how much progress they felt has been made, current obstacles and the direction the Department should be headed. When a new Minister is appointed, a decision will need to be made on a timeline</p>	

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	<p>for a new Energy Strategy. The Department aims to complete preliminary work on this to present to a new Minister. MC asked that if the Clean Energy Package was a requirement of the UK, would the timeline in Northern Ireland be dictated by Westminster? JR replied that Brexit adds additional complications and that these obligations are a requirement of the UK as an EU member state. These obligations may change once the UK ceases to be a member of the EU.</p>	
6	<p>Contestability Update</p> <p>Distribution</p> <p>SF stated that contestability in distribution went live on 28th March 2018. The processes and systems put in place to issue dual offers are working well with over 600 dual offers issued to date. NIE Networks has continued to engage with Lloyds Register and there are now 20 Independent Connection Providers (ICPs) accredited to operate in Northern Ireland. To date there have been 6 acceptances to proceed with an ICP; however many quotations are still within their 90 validity period. NIE Networks is also receiving positive feedback from ICPs on its ICP Portal. There are a few ICPs active in the Northern Ireland market that are issuing quotations to customers.</p> <p>Transmission</p> <p>HG stated that SONI is continuing to work with NIE Networks to develop the transmission guidelines and to come to a workable arrangement regarding the outstanding liability issue through the TIA. Meetings have been set up to discuss the issue and contact has been maintained in the in-between time. MC enquired if there was an action on the UR regarding contestability in transmission. TH stated that the UR, NIE Networks and SONI met in the middle of March. HG said that SONI and NIE Networks had an action to agree a working arrangement to manage the liability risk. MC enquired if there was a timeline for the publication of the guidelines. SF stated that NIE Networks would be providing a draft of the Transmission Guidelines to SONI this week and that the liabilities issue would be pushed forward in the next few months. An update on liabilities will be presented at the next RGLG.</p>	
7	<p>NIE Networks new Reverse Power Limitation policy</p> <p>BM stated that NIE Networks have produced a new policy entitled: <i>21/007 v1; Technical Requirements For Customer Export Limiting Schemes (Based On G100)</i>. This has been driven by the G100 policy in Great Britain (GB) and covers technical detail should a customer wish to install limited or zero export schemes. It is to align broadly with GB to make it easier for developers who wish to procure protection equipment from GB and install it in NI. It has been developed alongside customer requests and industry. This new policy removes a previous requirement for the installation to have a discrete reverse power relay if the installation is 150 kW or less at low voltage (LV). This will provide a cost saving for customers at a domestic/farming/small business level. The document provides information on different thresholds and voltage impacts. The policy also sets out a standard process for testing and commissioning. This new policy will make it easier for customers once the new G98 and G99 regulations are introduced and may make connections more cost effective. This policy is available on the NIE</p>	

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	Networks website at http://www.nienetworks.co.uk/documents/useful-resources/21_007v1.aspx	
8	<p>Update on Transmission Applications</p> <p>LF stated that SONI is processing three transmission generation connections. Two are renewable generators with a combined capacity of 180 MW. One is a thermal plant with a capacity of 490 MW. SONI is also processing a connection for a large demand customer; a data centre in the west of NI. Enquiries have also been received from three other data centres for connection in the west of NI.</p>	
9	<p>Network Development/ATR Update</p> <p>SONI gave a presentation accompanied by slides. HG stated that in total there is c1434 MW connected and committed. 886 MW is firm while 548 MW require further ATRs to become firm. Going forward SONI will be publishing the ATRs on their website. Anyone affected by ongoing ATRs have been updated on their status. RS stated that SONI forwarded a package of slides to provide an update on renewable developments. Included in the slide package is an update on TDPNI, the current status of renewables, the new three part Grid Development Process, any relevant reinforcement projects and transmission issues.</p> <p>RK stated that under licence condition 40 in SONI's licence, SONI are required to produce a ten year transmission development plan from 2018 which is updated yearly. The current document in development will apply from 2018 – 2027. Under the <i>Environmental Assessment of Plans and Programmes Northern Ireland Regulation</i>, SONI are required to undertake a Strategic Environmental Assessment (SEA). This is being carried out at the moment in conjunction with RPS acting as consultants, and is coming to the end of the SEA screening phase. The SEA will be out for consultation in July 2018. The development plan will be out for consultation in the third quarter of 2018 and due for publication by the end of the year.</p> <p>RS stated that the first part of the process involves planning where SONI shall develop the network and identifying need. Part 2 involves a detailed design of the route and ends with a submission for planning. Part 3 involves the work undertaken to get the project through planning. Every stage of the project involves a consultation phase. Reinforcement projects ongoing at the moment include the Omagh – Dromore restring. This is due for internal approval for the preferred option this week. A functional specification will then be produced for NIE Networks to perform a detailed design. Another progressing ongoing project is the 2nd Kells – Rasharkin 110 kV circuit. SONI are currently looking at possible routes for this. It has been decided that the Ballylumford – Eden section can be restrung as part of the Ballylumford – Castlereagh restring project. The rest of the work will be progressed at a later date.</p> <p>There is a transmission issue with the Coolkeeragh – Magherafelt line which becomes relevant once all of the currently committed renewables become connected. If this double circuit trips, there is the potential for a large phase angle to open up between the two substations. There is a runback scheme on the generators at Coolkeeragh. The steam turbine will trip and the gas turbine will run back to 160 MW. The line will not</p>	

No	Item	Action
	<p>reclose until the runback scheme concludes because auto reclose is inhibited in the event of a large phase angle. If the line cannot be reclosed and another cross country fault occurs on one of the underlying 110 kV circuits, there is a risk of cascade which will disconnect the West of Northern Ireland, all wind generation and Coolkeeragh. SONI have been studying this in more detail to determine how great of a risk this is and how often it will occur.</p> <p>RK stated that previous studies conducted in 2016 had highlighted the potential for significant issues, especially when there are periods of high wind in the West. A full year analysis was conducted for the year 2025. The results are dependant on assumptions including: the second North-South interconnector is in place, the 2nd Kells – Rasharkin 110 kV circuit is in place, the Omagh, Coleraine and Tamnamore voltage support STATCOMs are operational (this would mean Coolkeeragh is no longer a must run generator and can operate normally in the market), the Coolkeeragh runback scheme is operational and there is a new CCGT in the East of Northern Ireland. These studies were conducted assuming 40% renewables.</p> <p>The results shown from the new studies are more positive than those produced by previous studies. RK explained a number of graphs detailing the results of the study. One showed the number of times the phase angle on the Coolkeeragh – Magherafelt circuit goes above 20° (limit for autoreclose). Each point represents a one hour period in the year. Blue dots represent when the gas turbine at Coolkeeragh is running and red dots represent when it is not. The graph concluded that when the Coolkeeragh turbine is not running, the risk of a large phase angle is reduced. This is immediately after an event when the runback scheme is tripped but the gas turbine is at its full output. The second graph showed results after the runback scheme has operated (generally 5 minutes after the event). This graph identified fewer periods when the phase angle was in breach of the 20° limit. The third graph displayed results on line loading post event. The 110 kV line, which would have the heaviest loading after a double circuit trip event is the Tremoge – Tamnamore 110 kV line. The graph showed that the line never breached its summer rating limit at any point and therefore is never overloaded. The results are heavily dependant on the assumptions made. If any of these assumptions were to be removed, the probability of an event would increase. SONI intends to carry out work to determine sensitivities on wind profiles. SONI shall be investigating re-dispatch options post-fault, statistical analyses on the correlation of fault risk and wind speed and probabilistic risk assessment. SONI shall then engage with stakeholders.</p> <p>TH enquired when SONI shall be engaging with stakeholders. RS stated that SONI was open to comment on the topic but that the risk of an event is only presented a few times a year. The double circuit may trip once every five years at worst; therefore this could be a hundred year event. If the event did occur however, over 1000 MW of generation could be lost causing load shedding and islanding. By autumn, SONI shall have gathered more detail and will produce a report which shall be published</p>	

No	Item	Action
	on their website and open to feedback. TH stated that the UR and the DfE will want to see this report before it is published online.	
10	<p>Battery Storage and Hybrid Workshops</p> <p>HG stated that there was an all island industry workshop on battery storage in Dublin on 15th May 2018 and was attended by 140 people. The aim was to open up communications with industry relating to progressing storage connections. The slide deck from this workshop can be obtained at the following address: http://www.eirgridgroup.com/site-files/library/EirGrid/Storage-Technology-Workshop-Slide-Deck.pdf</p> <p>A number of presentations were given on the DS3 volume cap consultation, the Hybrid Working Group and network codes. There were discussions on how batteries are treated in the market, the shallow connection analysis, charging, application of grid code and testing.</p> <p>The Hybrid Working Group has met three times to date. The next meeting is in June 2018. They are currently working on a new mission statement and work stream structure that will be discussed at the next meeting. A few issues have been raised by the group including the definition of a hybrid site and multiple entities sharing connection points. The scope for the group is to be tightened.</p>	
11	<p>Operational Update</p> <p>RoCoF Update</p> <p>DH gave a presentation accompanied by slides. DH stated that RoCoF stands for <i>rate of change of frequency</i>. A large RoCoF is induced when there is a large event on the system. This was not a problem when the majority of generation connected to the network was conventional generation with large prime movers as these have momentum to counter any changes from a large frequency event. All generators connecting to the distribution system must have G59 protection which involves a RoCoF element. This element measures RoCoF and will disconnect the generator from the network if it detects a loss of mains. As part of the facilitation of renewables studies, carried out in 2010/2011, there were a number of key objectives identified to meet the 2020 40% renewables target. The system would need to be moved so that when available, the system operators could allow demand to met from 75% non-synchronous sources. To do this, the conventional power stations would need to be replaced which will decrease system inertia and cause larger RoCoF during system frequency events.</p> <p>At the moment, generation protection settings are set to trip at low RoCoF values, therefore up to 1800 MW of non-synchronous generation could be lost when a conventional power system trips and causes a large RoCoF event, resulting in a black start. It was decided to move the RoCoF settings for all distribution connected generation to 1 Hz/s. The large scale generation (LSG) sites started changing their settings in late October 2017. Over 1 GW of generation sites (including sites that have connected since the programme started) are now compliant with the new 1 Hz/s setting. 96% (914 MW) of LSG sites have now changed their settings. The 5 remaining LSG sites date back to the mid 90s and have older relays installed. They must therefore purchase new relays which delays their implementation of RoCoF changes due to procurement timings. The site owners have been contacted and are committed to</p>	

No	Item	Action
	<p>changing their settings by the end of June 2018. RoCoF relays are the responsibility of the customer.</p> <p>There is c370 MW (excluding microgeneration) worth of small scale generation (SSG) sites now also in scope to change their RoCoF settings. A Strathclyde analysis and consultation was carried out from December 2017 to January 2018. It was proposed to move the RoCoF setting for SSG to 1 Hz/s. The consultation response and implementation plan options were submitted to the UR in February 2018. The UR approved the D Code amendments required and D Code Issue 4 was published on 11th May 2018. c1500 SSG sites are now in scope to amend their RoCoF settings. NIE Networks have agreed an implementation plan based on the views of the UR. 1500 letters requesting G59 changes were sent out on 4th June 2018. Changes must be implemented by 30th September 2019. NIE Networks is managing the process but ultimately it is the responsibility of the customer to make the changes.</p> <p>SSG owners have been asked to acknowledge receipt of the letter by 29th June 2018 to give NIE Networks an idea of engagement. To assure system operators that the changes have been made in the correct fashion, NIE Networks have compiled a list of c20 approved G59 contractors. These contractors have been involved in commissioning these G59 sites, so it is hoped that they will go after the customers to obtain the work, speeding up the process. The UR has agreed that the costs associated with making these changes shall be borne by the generators. At the moment the SSG RoCoF changes are delaying the system operators moving the rate of non-synchronous penetration on the network from 65% to 75%.</p> <p>NIE Networks hosted a G59 contractor technical workshop where they informed contractors that there was the potential for £1 million of work. Contact has also been made with various agencies such as the UFU and NIRIG. CO put an article on the subject in the Farming Life newspaper. NIE Networks shall analyse the ownership of the 1500 sites and hope to engage with the 20 larger companies that own 25% of the SSG capacity. The aim of these measures is to make it as easy as possible for site owners to engage. NIE Networks have sent out a guidance note to the SSG owners providing technical detail, the reasons for and the benefits of the RoCoF changes. SAE envelopes were included to return acknowledgement of test results. If an SSG owner decides not to move their RoCoF setting, and the system operator moves the level of non-synchronous penetration to 75%, then the generator will trip more often due to larger RoCoF events on the system.</p> <p>CO enquired if NIE Networks would consider extending their sessions to single sites. DH responded that it is difficult to keep a session focussed if there are large numbers of individuals in attendance. CO suggested increased collaboration between NIE Networks and the Ulster Farmers Union (UFU) and stated that education on the changes is key. DH stated that the cover letter was not intended to put customers off; rather it was intended to provoke action on the customer's part. A triparty meeting shall be set up between NIE Networks, SONI and the UR to monitor</p>	

No	Item	Action
	<p>customer progress in making the changes. BM confirmed that these changes apply to all generation, not just renewables. DH stated that LSG shall suffer greater constraints if they do not move their settings; therefore they have greater incentive to comply with the changes. Conventional SSG sites may take longer to change their settings.</p> <p>SSG SCADA Update</p> <p>SH gave a presentation accompanied by slides. An enforcement process to install SCADA at c600 SSG sites was started last year. To date only one site has completed all D Code and SSG Setting Schedule Requirements. They have been issued with an Acceptance Test Certificate. Due to the large amount of outstanding work and limited engagement from SSG site owners; from 2016, jobs cleared to construction were sent reminder letters about SCADA encouraging customers to get in contact with NIE Networks. Over 300 letters were sent and only 12 responses have been received. Of those 12 respondents, none have completed their SCADA installation.</p> <p>Last year letters were sent out as part of an enforcement process. SCADA is a requirement of D Code, and NIE Networks is using mechanisms within connection agreements to enforce compliance. All sites have received a letter giving them one year's notice to rectify their non-compliance with SCADA. Once this year expires, enforcement proceedings may be used. Some sites have 60 days until their year grace period expires but most of these sites understand what is required of them and have a programme of works in place. The first set of letters issued were sent to high voltage (HV) connected customers, however some of these sites are owned and operated by separate entities. Whoever owns the connection point to the site is the responsible party for compliance with D Code. A separate letter will not be issued to the party operating the generator. Most contact to date has been with these HV sites and a couple of developers; however more engagement has been received from LV sites in recent months.</p> <p>CO stated that contractors on the ground are not clear regarding what is acceptable technology to implement SCADA. Some believe that they have come up with adequate solutions but are keen to know what NIE Networks defines as acceptable. SH responded that the Setting Schedule sets out what the RTU must be capable of at a high level. As long as the kit meets this requirement; their solution is acceptable. A DMP3 RTU will work with the SCADA system. NIE Networks have spoken to some AGU and DSU developers who already have their own SCADA telemetry for a number of generating units and aggregate it in their control room. They were looking to send the information to NIE Networks from this control room. This is an unacceptable implementation as NIE Networks must be able to communicate with the hardware on site. If the generator moves from one DSU to another or becomes disconnected, NIE Networks would have to redo their SCADA installation.</p> <p>CO stated that the UFU has set up a group to deal with the SCADA enforcement process and that he would like to invite the two</p>	

No	Item	Action
	<p>representatives to meet with NIE Networks and the UR. DH stated that it would be useful to get the relevant people in a room together to talk through the issues but that the installation of SCADA was the responsibility of the customer. TH stated that this was an issue of D Code Compliance and that the meeting could be carried out without the presence of the UR. DH stated that the SCADA requirements in NI were very strict but shall soon also be implemented in Europe. These requirements are necessary to manage the network effectively, particularly as the levels of non-synchronous generation on the network increase.</p>	
12	<p>Response to request for new membership</p> <p>JO'B stated that there have been 5 queries of interest to the advertisement placed on the UR website announcing the existence of the RGLG group.</p> <ul style="list-style-type: none"> • An academic from Ulster University • SSE and Budget Suppliers • Phoenix Natural Gas • Low Carbon Solutions <p>JO'B stated that if membership was granted to an academic from Ulster University then a place would also be offered for Queen's University to send a representative. NIE Networks already communicates with suppliers through the Supplier Forum (CDA). Therefore it may be a better idea to ask the CDA to nominate one representative to sit on the RGLG. The UR is not sure whether Phoenix would be a relevant addition to the group as the RGLG focusses on renewable energy and Phoenix would mainly be looking to discuss their methane injection pipe project. Low Carbon Solutions are involved with the installation and integration of CHP systems. The UR is keen to get the opinion of the group on these requests to take the matter forward.</p> <p>MC stated that this level of response from such a wide range of people was indicative of the increasingly integrated energy sector and that the RGLG group itself had branched off to cover a variety of topics including D Code Compliance and hybrid sites. MC suggested looking at the functioning of all groups currently active e.g. the D Code Review Panel, Hybrid Site Working Group, CDA, RGLG etc... to see where there are commonalities and what the need for each specific group is. It would be useful to produce a diagram showing what groups are out there and what topics they cover to ensure that each group continues to be effective.</p> <p>TH stated that the UR would undertake a review of all groups currently active and where their Terms of Reference overlap. Many SSG sites are contracted to suppliers, who will sit on the CDA and engage with NIE Networks. SSG sites will listen to their suppliers; therefore the input of suppliers into the RGLG group could be useful. TH stated that the UR would engage directly with Phoenix as their interest is in customers connecting to their gas network and so they may not obtain much value by attending the RGLG meetings. DMcD commented that there is more than one gas distribution network in NI.</p>	
13	GDPR	

No	Item	Action
	<p>JO'B stated that everyone who attends an RGLG meeting has their full name listed in the minutes. The Terms of Reference for the RGLG are very transparent and hosted on the UR website. The UR highlighted GDPR legislation and that by attending the meeting; all attendees were giving their consent for their name to be published in the minutes. If anyone has an issue with this, they must explicitly state it to the UR. At this point in time, the UR does not see this as a time limited permission and has no intention of removing any of the minutes or any of the presentations from their website after a certain time. The UR see the work of this group having ongoing implications for policy development in the future and do not see the need to retract names from any now public documents.</p>	
14	<p>AOB</p> <p>MC stated that NIRIG hosted a Smart Energy Event and announced that Baringa have been contracted to perform all island modelling on 2030 targets. The final technical report on this shall be published fairly soon. A summary report shall then be produced for Northern Ireland and the Republic of Ireland separately. Many assumptions were made during the modelling process and NIRIG is keen to ensure that everyone is aware of these assumptions to allow experts to challenge them. Baringa shall be holding a workshop on this analysis on Monday 11th June 2018 at 13:00 in the Strategic Investment Boardroom. If anyone wishes to be involved they should email NIRIG. Once the report has been published and the workshop has been held, NIRIG would be happy to give a high level overview on the assumptions and results from the modelling to this group or agencies such as the UR and DfE separately.</p>	
15	<p>Dates of 2018 Meetings</p> <p>TH suggested that the next two meetings be held in September and the end of November. The UR will forward some suggested dates in due course.</p>	

Summary of Actions

Action No.	Action Description	To be Actioned by
1	Circulate presentation slides from the 25 th RGLG meeting to the RGLG mailing list	NIE Networks
2	Forward new NIE Networks Export Limitation Policy (based on G100) to RGLG mailing list	NIE Networks
3	Present on the changes being introduced to NI due to the adoption of G98 and G99 standards once the new processes are implemented in D Code	NIE Networks
4	Arrange a meeting between NIE Networks and the UFU to discuss the SCADA enforcement process	NIE Networks / UFU
5	Give an update on the progress of the meeting between NIE Networks and the SCADA sub-group of the UFU concerning the SCADA enforcement process at the next RGLG meeting	NIE Networks / UFU
6	Provide an update on liability issues in contestability	NIE Networks / SONI
7	Provide a link to the slide deck used at the Battery Storage Workshop on the 15 th May 2018 to the RGLG mailing list	SONI
8	Circulate a new department organisational structure once all new team members have joined the Department	DfE
9	Undertake a review of all currently existing groups to consider where there is overlap in their Terms of References	UR
10	Send a list of companies asking to join the RGLG to the mailing list. Anyone with objections or comments on any of the companies should respond within a given timeline	UR