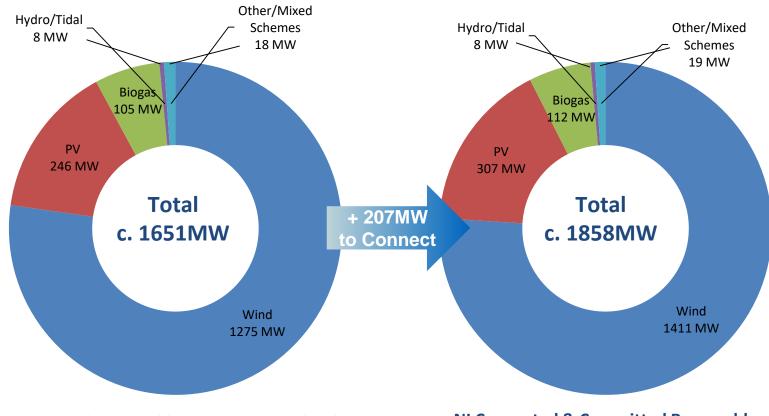


RENEWABLE STATUS UPDATE

RGLG 5th February

Renewable Generation Status – Q4 2018





NI Connected Renewable Generation Technology

NI Connected & Committed Renewable Generation Technology Mix





Project Name	Developer	MEC/MIC	
KPS 50MW BESA	AES Kilroot Limited	50MW MEC & MIC	
Offers Issued			
BPS 100MW BESA	AES Ballylumford Limited	100MW MEC & MIC	
Atlantic Gateway	Atlantic Gateway Property Ltd.	100MW MIC	
Agivey Cluster Section S Offer	NIE Networks (DNO)	NA	
Curraghamulkin Wind Farm (also called Dooish)	DW Consultancy	42MW MEC	
Doraville Wind Farm	SSE Renewables (UK) Limited	138.6MW MEC	
Belfast Power Limited	Evermore Energy	489.6MW	
Drumkee Battery Storage	Low Carbon	50MW MEC & MIC	
Mullavilly Battery Storage	Low Carbon	50MW MEC & MIC	



Connection Innovation Working Group (CIWG) Update





Contestability Update

Distribution and Transmission









Transmission Development Plan NI 2018-2027

- Consultation period has now ended
- 10 responses received
- SONI preparing response document for publication in next few weeks
- Liaising with UR on next steps and enduring timeline for future iterations
- TDPNI 2019 will have a freeze date of 1 January 2019



NW Renewable Integration/Phase Angle Issue

- SONI has produced a report which will be shared with DfE and UR shortly
- Details expected magnitude of issue longterm and mitigation measures (operational and new development)
- We will engage more widely after discussions with Department and UR



Thanks for your attention Any questions?





G59 ROCOF IMPLEMENTATION PROGRAMME

RGLG Update 05/02/19

LSG RoCoF Progress



- All LSG sites >5MW have been changed to new RoCof setting
- 1120 MW of 1Hz/s RoCoF compliant Large Scale Generation (including sites that have connected since the programme started)
- 68 LSG sites have been changed

SSG RoCoF Implementation



- Letters requesting G59 changes sent out 01 June 2018
- SSG owners to acknowledge receipt
 - Online or by return pre-paid envelope
- For assurance purposes SSG owners to use G59 approved contractors
 - List of approved contractors on NIE Networks website
- G59 approved contractor list established following procurement exercise
 - c20 contractors on list
- SSG owners to make the changes by 30 September 2019
- Costs associated with making the changes borne by SSG owners

SSG RoCoF Progress – Correspondance

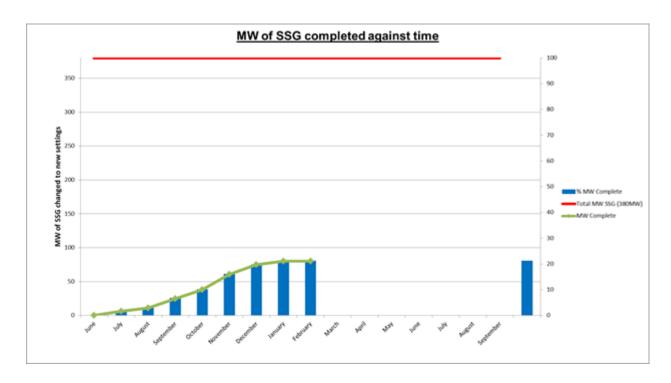


- c1500 letters sent to SSG owners
 - c1000 (66%) acknowledgement responses 302MW
- c500 follow up letters sent to non-responders at the end of October
 - c191 acknowledgment responses 52MW
- Total acknowledgments to date 1185 354MW
- c285 generators (56MW) still to acknowledge either letter
 - 161 Wind (33MW)
 - 88 PV (5MW)
 - 20 AD/Biogas (7MW)
 - 11 Diesel (9MW)

SSG RoCoF Progress – Totals

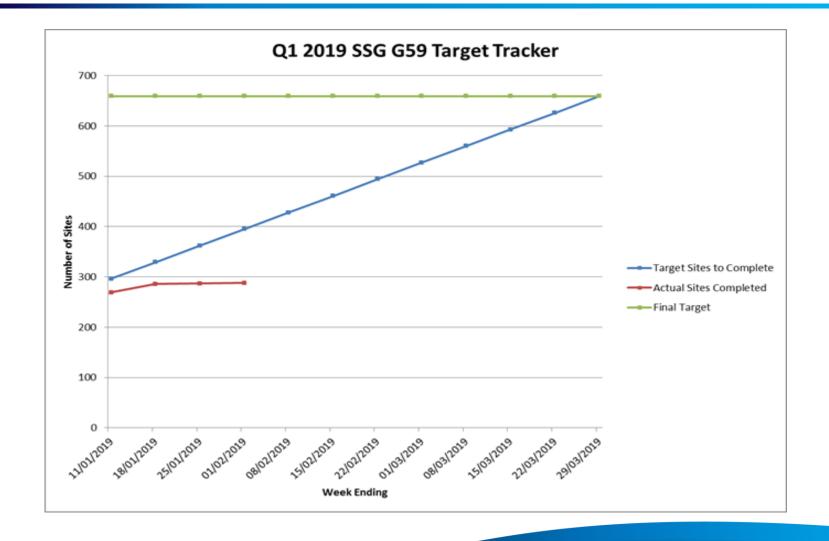


Letter 1 Returns	Letter 1 Acknowledgement (kW)	Letter 2 Returns	Letter 2 Acknowledgement (kW)	Total Returns	Total Acknowledg ement (kW)	Changes Complete	Changes Complete (kW)	Changes Complete (% kW)
994	302276	191	52304	1185	354580	288	80313	21.1



SSG RoCoF Progress – Tracking





SSG RoCoF Progress – Next Steps



- UR SONI NIE Networks progress review meetings.
- Continued engagement with the approved G59 contractors to ensure effective programme delivery.
- January 2019 Re-engagement with NIRIG, UFU, Industry, multiple site owners.
- 1st February 2019 3rd letter to 285 non-responders pointing out that non-compliance will lead to de-energisation notices being issued which may have implications for generators' contractual obligations.
- 8th February 2019 Follow up letter to all Generators that haven't made the changes reminding them of the need to be compliant by 30th September 2019 and pointing out that non-compliance will lead to deenergisation notices being issued which may have implications for generators' contractual obligations.
- March 2019 NIE Networks hosting 4 information evenings where generators can discuss the required changes with NIE Networks technical staff.

SSG RoCoF Progress – 2nd Reminder letter



G59 SETTINGS NOTIFICATION – URGENT ATTENTION REQUIRED

We previously wrote to you regarding changes that you are required to make to the G59 protection at your generator. To date we have not received the required acknowledgement return included in the earlier correspondence.

YOUR GENERATOR IS NOW SCHEDULED FOR DE-ENERGISATION AFTER 1st OCTOBER 2019. YOU MUST TAKE THE REQUIRED ACTIONS BELOW WITHOUT DELAY.

REQUIRED ACTIONS:

- Engage a qualified engineer to update the G59 protection settings at your generator. Full details of G59 contractors are available online at www.nienetworks.co.uk/G59contractors.
- Confirm to NIE Networks that you have received this letter and that you have engaged a G59 contractor. This can be done online at www.nienetworks.co.uk/G59replyform or by post using the enclosed acknowledgement form.
- For generators with a connection point at 11kV and above, book an appointment for an NIE Networks' engineer to witness a protection test of the new G59 settings.

FURTHER DELAY IN ENGAGING A G59 CONTRACTOR MAY AFFECT YOUR ABILITY TO ENSURE COMPLIANCE WITH THE DISTRIBUTION CODE BEFORE 1st OCTOBER 2019.

Those generators who have not made the required G59 protection changes by 1st October 2019 will receive a 'Notice of De-Energisation' and will not be permitted to operate their generation facility in parallel with the Distribution System after that date. Failure to update the G59 protection settings after 1st October 2019 may result in disconnection of your generator from the network and withdrawal of the export capacity allocated to it. Resumption of generation after withdrawal of export capacity would require a new application for capacity to be made to NIE Networks, however no guarantee can be given that capacity will be available.

NIE Networks will inform your electricity supplier that de-energisation may occur on 1st October 2019 as this may have implications for the power purchase contracts that you may have in place with your supplier. De-energisation may also affect any contractual arrangements in place with Ofgem and the funder of your generation plant. For all queries on this matter please email G59@nienetworks.co.uk.

SSG RoCoF Progress – Information Evenings



Date	Venue	Time
Monday 4 th March 2019	Glenavon Hotel, Cookstown	7.30 – 9.00PM
Wednesday 6 th March 2019	Silverbirch Hotel, Omagh	7.30 – 9.00PM
Monday 11 th March 2019	Seagoe Hotel, Portadown	7.30 – 9.00PM
Wednesday 13 th March 2019	Tullyglass Hotel, Ballymena	7.30 – 9.00PM



EU NETWORK CODES

RGLG Update 05/02/19

EU Codes that affect NIEN & its Customers



- Requirements for Generators (RFG) significant impact for new generation connections
 - EIF May 2016, Generators connecting after 27th April 2019 must comply with RfG
- Demand Connectrion Code (DCC) Only applies to <u>new</u> demand at distribution which <u>intends to provide</u> demand response
 - EIF Aug 2016, compliance required by Aug 2019
- System Operation Guide Lines (SOGL) Mainly deals with how TSO operates the transmission system
 - EIF August 2017, majority of articles become active at 12, 18 and 24 months, small number of articles effective immediately

21 nienetworks.co.uk

RfG Implementation - Update



- TSO/DNO consultation report on the proposals for General Application of RfG Requirements for NI approved by UR on 16th November 2018
- The agreed parameters have been updated to the draft G98/NI, G99/NI, D
 Code & PPM Setting Schedule documents
- Joint consultation on all 4 documents was issued early 10th January 2019 and closes on 15th February 2019
 - Consultation focuses on document structure and new legal text only:
 - New RfG requirements are now required by law
 - The parameters have already been consulted on and approved
- Consultation report to UR early March
- Approved documents to be in place for 27th April 2019

G98/NI Drafting Update



- G98/NI replaces G83
 - Covers type tested generators up to 16A/phase
 - Also covers multiple premises in a close geographic area
 - Also covers generators <800W and storage but RfG specific requirements will not apply to these types
 - Non-type tested generators will be referred to G99/NI (G59 replacement)
 - Includes sign post to G99/NI for fast track combined generation and storage applications (<16Amps/phase)
 - Drafting has taken account of feedback from GB G98 consultation
 - Drafting includes parameters from the RfG consultation
 - Document circulated to DCRP members
 - Joint consultation with G99/NI & D Code 10th January 2019

G99/NI Drafting Update



- G99/NI replaces G59/1/NI
 - Covers type tested generators >16A/phase and <100kW
 - Covers all non-type tested generators
 - Will include all technical and compliance requirements for Type A and Type B generators
 - Will include all technical requirements for Types C & D generators, PPM compliance requirements will be detailed in the PPM setting schedule
 - Drafting includes changes as a result of feedback in GB
 - Drafting includes parameters from the RfG consultation
 - Document circulated to DCRP members
 - Joint consultation with G98/NI & D Code 10th January 2019

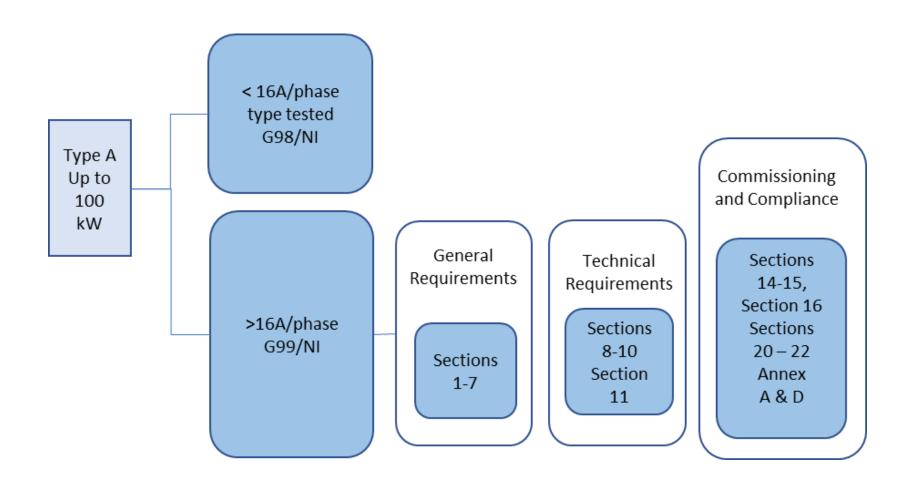
D Code Drafting Update



- D Code legal text changes required to take account of RfG
 - Drafting includes changes as a result of feedback in GB
 - Drafting includes parameters from the RfG consultation
 - Document circulated to DCRP members
 - Joint consultation with G98/NI & G99/NI 10th January 2019

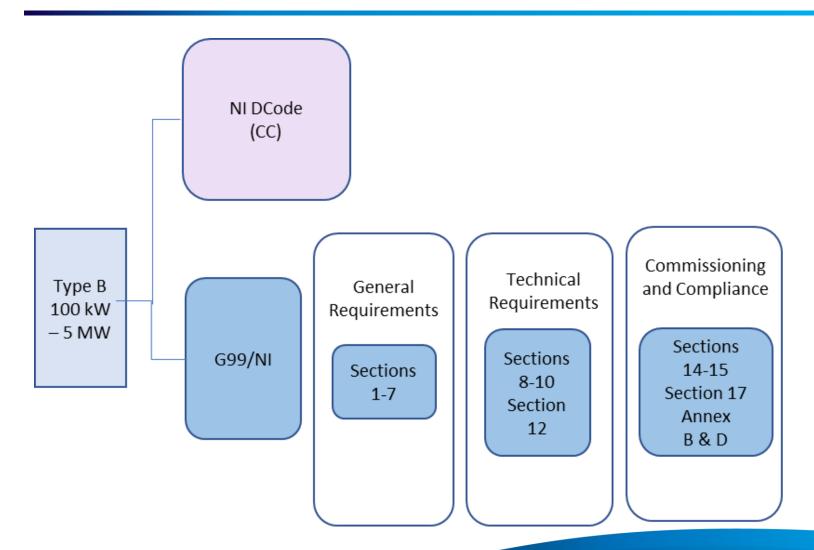
RfG Type A (800W – 100kW)





RfG Type B (100kW – 5MW)





RfG Type C & D (5MW – 10MW & >10MW)



