

SSEN Transmission Whole System Coordination Register 2022

www.ssen-transmission.co.uk

Scottish & Southern Electricity Networks



Whole System Coordination Register for 2021-22 published May 2022

This register is published to demonstrate compliance by SSEN Transmission with the Whole System Electricity Licence condition.

It reports on compliance for the period from 1st April 2021 to 1st April 2022

Whole electricity system outcomes arise from actions taken between two or more parties, at least one of whom holds an electricity transmission or distribution licence, that result in both:

- An investment in the transmission and distribution electricity networks representing best value for money; and
- Improving or, at a minimum, maintaining the services and benefits received by Customers of the electricity network.

Part A - The behaviour requirements (summarised)

Clause 1

The licensee must coordinate and cooperate with other Electricity Distributors and transmission licensees to identify actions and processes that advance the efficient and economical operation of the Total System.

Clause 2

The licensee must consider actions proposed by Distribution System Users/Transmission System Users which seek to advance the efficient and economical operation of its network.

Clause 3

The licensee must use all reasonable endeavours to implement actions and processes identified and proposed through coordination or user suggestions that: (a) will not negatively impact its network; and (b) are in the interest of the efficient and economical operation of the Total System.

Part B - Demonstrating compliance (summarised)

- This register details completed and in progress work which demonstrates compliance with the Whole System Electricity Licence Condition.
- The licensee must prepare and is required to publish on its website a coordination register demonstrating the steps it has taken to comply with Part A of this condition not later than 27 May 2022.
- The licensee must keep up to date and is required to publish its coordination register (as updated) on its website at least once every 12 months from the date of initial publication.
- Further information on the Whole Electricity System Licence Condition and its purpose can be found on Ofgem's website.
- Decision to implement the Whole Electricity System Licence Condition D17/7A for Transmission Owners and Electricity Distributors | Ofgem





The factivities and actions' tab of nows in columns Q-T. If you are fil 'Coordination and cooperation as rows, or delete rows. Actions can	of the register is structured w filling in an activity, columns is activity' or 'Related Action' w an be repeated if common to r	Ith coordination/ cooperation activi Q-T are blocked out and for related II indicate which columns should be more than one activity. However, if i	ies described in columns E-P, a ictiona, columns E-P are blocks completed. As required, you s n action is being repeated, ple	and related actions in the following ed. Choosing a 'Type' in column A as can choose 'Type', copy to insert lease refer (link) to the cell instead of	Relevant coordination and												Actions or Processes arising			
copy-pasting.		Unique identifier for each	Lead licensee for Li	icensees and other	cooperation activities Details of the activity (could be an activity from a project or an activity that is	In progress, Not take	n Latest stage / Update since the	e When was a decision made to	Details of why it is relevant to whole	Links to reports of the project or	Description of any data that was shared. Include the format of the	Links to the data not the	A brief description of the impact of the	A brief description of the impact of the activity on	What is the recommended next stage? Positively,	Justification for the decision. Even if the decision is not to take things	Details of the action and/or process	Rough date of initiation of the	New, Referen	ance to the activity in the register that resulter
		row of the sheet. xxxx/00n for an activity	the action or st activity (not co	takeholders with whom ollaboration was/is being	used in multiple projects) along with its objective. Only activities that improve the economy and efficient of the whole electricity system is to be considered.	forward, Complete	last publication / comments	act upon a challenge/need. Thi could include the date when	s system.	activity	data, if applicable, and highlight any data that cannot be widely shared due to commercial sensitivity.	project/activity	activity on the whole system, mainly along the lines of positive, neutral or negative	the licensee, mainly along the lines of positive, neutral or negative	will then move on to the 'actions from coordination	forward, a brief explanation should be added to promote learning.		action/process		action/process (not to be confused with inten or project numbers)
		xxxx/00n/A0m for action xxxx refers to the publishin organisation or license grou n and m refers to numbers	licence group) ca g p;	arried out.	Register is of activities in progress or completed, not planned. Explanation of th activity takes precedence over the project description.	ie -		analysis for options was initiated.							sheet. If it is not taken forward, add justification.					
st	Supporting evidence shared with Whole System Manager	Unique ID		ollaborating licensees and ther stakeholders	Description of the coordination/ cooperation activity	Status	Latest stage /Update /comments (if any)	Coordination activity initiation date (mm/yyyy)	Whole system relevance of the activity	External links to reports on the activity (If available)	Description of data (who shared the data) [widely shared/restricted sharing]	External links for data (if available)	Impact of the activity on the whole system	Impact of the activity on licensee	Recommended next stage of the activity	Justification for recommendation	Action or Process description	Action or process initiation date (mm/yyyy)	Status Referen which r	ence of the activity or user suggestion h resulted in this action/process
Coordination and ye cooperation activity	yes	SSEN/001	SSEN SI Transmission	HEPD	Joint discussions with SHEPD to capture their need to uprate transformer capability on sites with planned transmission network reinforcements to enable a coordinate network development as demonstrated in East Coas 132kV Upgrade LT225		Dec-21	Mar-21	Ensures better coordination and better utilisation of resources resulting in overall whole electricity system benefits.	None	Business case with technical information (SSENT) [restricted sharing];	None	The impact on the whole system is positive as a coordinated approach results in efficient capacity sizing of assets and also better overall resource	The impact on the licensee is positive as a coordinated approach results in resource efficiency.	Recommend ongoing co-ordination with SHEP for planned transmission reinforcements at GSP sites which impact SHEPD.	D This decision would enable better utilisation of resources.				
Related action ye	yes	SSEN/001/A01	SSEN SI Transmission	HEPD	132KV Upgrade L1225				system benents.				efficiency.				New Business Case template incorporating the need to explore whole system options. This will inform future working with other network	Mar-21	New SSEN/0	001
Coordination and ye	yes	SSEN/002	SSEN SI	HEPD/NGESO	Discussions with SHEPD and NGESO on procedure to move customers	Complete	Dec-21	Apr-21	Cost effectivness to customers and	None	Technical Report with cost data and alternative solutions share	f None		Positive, avoided costs in Transmission		Potential to provide costs savings for all parties involved.	licensees as a BaU activity.			
cooperation activity Related action ye	VIDE	SSEN/002/A01	Transmission SSEN SI	HEPD/NGESO	from Dunvegan to Edinbane to resolve conflict on distribution and transmission route corridors. This was to achieve cost efficiency in the connection arrangement.				distribution network operator		(SSEN Transmission) [RESTRICTED SHARING]. SHEPD provided indicative costs data on distributions options (SHEPD) [Restricted Sharing].		which in turn translates to lower cost of connection.	infrastructure.	embedded generators that trigger significant works at existing GSP sites.		The action is to offer SHEPD a new GSP at Edinbane so that they can	Apr-21	New SSEN/0	/002
Coordination and ye	yes	SSEN/003	Transmission	PT, NGESO, SPD, SHEPD	Under the Regional Development Programm approach, completed a	In progress	Jan-22	Jul-19	Review of options across	None		None	Positive - broad assessment of all	Positive as it supports timely investment	Develop Regional Development Plan (RDP) to	It is expected that a pro-active approach through the RDP will identif	connect customers to the new site.			-
cooperation activity			Transmission		coordinated review of proposed transmission investment works to accommodate new battery customer connections at Abenethy and Burghmuir. This required a risk based/probablistic approach to better understand the risk of constraints recognising the unique operating				transmission and distribution networks to resolve potential transmission constraints.		loading (SSEN Transmission) [restricted sharing) Future Generation and Demand scanrios for relevant GSPs (SHEPD) [restricted sharing]		Transmission and Distribution related options, resulting in the most cost effective outcome.	decision making and customer connected in lin with contracted dates.	e accommodate local growth and coordinate with asset replacement plans.	efficient solutions for customer connections in the region ahead of trasnmission infrastructure investment.				
Related action ye	yes	SSEN/003/A01	SSEN SI Transmission	PT, NGESO, SPD, SHEPD	phylosophy of battery system storage technolgy.												Further development of probabistic planning methodology and exploring how this approach can be applied to other parts of the network where there is value to whole system in doing so.	Dec-20	New SSEN/0	003
Coordination and yr cooperation activity	yes	SSEN/004	SSEN SI Transmission	PEN	Preliminary meeting to agree future meetings to ensure we align our cro boundary asset intervention plans for the T3 period	ss- Complete	None	0et-21	If we coordinate our planned activitie at cross-boundary circuits, we can ensure the most efficient delivery processs that will achieve the output at the lowest cost to the consumer.		No data shared at this preliminary meeting	None	positive, once cross-boundary projects	boundary projects have been identified and	t Establish quarterly coordination meetings, is- once development of the T3 business plans commence	Having coordination meetings with other network licensees like SPEN will ensure efficient project planning delivery across our network boundaries.				
Related action ye	yes	SSEN/004/A01	SSEN SI Transmission	PEN													Establish a quarterly coordination meeting between SSEN Transmissio & SPEN to discuss the development of our T3 non-load business plans establish any cross-boundary activities.	to Oct-21	New SSEN/0	304
Coordination and ye cooperation activity	yes	SSEN/005	SSEN SI Transmission O	PEN, NGET, SHEPD, Users, Dfgem, ENA, Trade bodies	Advocating for reform to Transmission Network Use of System (TNUoS) charges to remove barriers to renewable generation development in the	In progress	Dec-21	Jul-20	Our evidence based work on this area, monitors and tracks the effect	transmission.co.uk/information	Shared data analysis (developers and SHEPD) [widely shared]. Colloboration with industry bodies and wider stakeholders.	transmission.co.uk/information	 trusted source of information that 	particular around enahancing our stakeholder	indicates that reform will take place, we will	Grid charging, access and markets play a vital part of ensuring that we can deliver our business plan efficiently. It is important for us to	e			
					north of Scotland whilst ensuring charges do not hinder the progression of our business objectives and the transition to net zero. This includes representing SSEN Transmission on industry forums including Ofgem's				that TNUoS has on users and how TNUoS impacts system investment and operation at both distbution and			centre/tnuos/	positive change in direction by Ofgem	to stabilise the cost of using the network will al		continue to monitor change in this area and advocate where appropriate the requirements for our business, stakeholders and wider society.				
					recreating assert in the second				and operation at both obsolution and transmission. This includes advocating for reform not only for transmission connected generation but also at distribution (Ofgens Access SCR minded to position). A ke part of this work is also considering the impact on consumers and ensur society reaches net zero efficiently a least cost.	Y			pulsaming a can or evidence of infolds reform and its expected that wide ranging review will take place.	provide rule and investments, de alang voi door developers and the required network construction.	Definition of the activity of the second of the second of the electricity markets that directly freed. Thus, we plan to further explore and analyse the electricity market in further detail.	NUC SUCCY.				
Related action n	no	No associated action	SSEN SI	PEN, NGET, SHEPD, Users, Dfgem, ENA, Trade bodies													N/A	N/A	N/A N/A	
Coordination and ye cooperation activity	yes	SSEN/006	NGESO SS	SEN Transmission, SPEN, IGET	SSEN Transmission has provided its views on the NGESO's consultation o simplification, digitilisation and consolidation of technical codes (Grid Code and Distribution code)	n In progress	Nov-21	Sep-21	This project is important as it supports the Energy Code Review and addresses some of the challenge of the existing codes to enable whok system thinking.		Responded to the questionnaire on a number of issues and things that should be done to enable the simplication and consolidation of technical codes to benefit the total system. (NGESO) [restricted sharing]	None	We expect a positive impact on whole system	around enhencing stakeholder engagement or	different parts of the business to participate in	Technical codes will play a critical role in how we develop and operat the network for net zero. We are keen to be actively involved in the simplication and consolidation of bechnical codes to ensure that its done in a manner that benefits whole system.	e			
Related action n	no	No associated action	NGESO SS	SEN Transmission, SPEN, IGET					spacerr unineng.								N/A	N/A	N/A N/A	
Coordination and ye cooperation activity	yes	SSEN/007		SEN Transmission, SPEN, IGET, BEIS	SSEN Transmission has been actively involved in the Offshore Transmission Network Review initiated by the UK Government. Our aim to drive policy position and ensure an efficient holistic network design.	In progress	Feb-22	Jun-20	A holistic whole system approach to offshore network design is critical to address the barriers that the current regime presents to connection of high volumes offwind required to meet net zero	m/document/239466/downloa	 Interface location points and cost data shared (NGESO) [restricted sharing] 	None	the whole system as it will ensure an	n The project has a positive impact on SSEN in th it will enable us to connect huge volumes of offshore wind to the network in an efficient an economic manner.	working group.	This project is important as it will ensure efficient development and delivery of the offshore transmission network which is essential to enable the connection of huge volumes of offshore wind required to meet net zero.				
Related action n	no	No associated action	N	SEN Transmission, SPEN, IGET, BEIS					-								N/A	N/A	N/A N/A	
Coordination and ye cooperation activity	yes	SSEN/008	NGESO SS N	SEN Transmission, SPEN, IGET, BEIS	SSEN Transmission has taken an active role in different workstreams faciliated by the Energy Network Association. The work has included the development of tools like whole system cost benefit analysis required to enable a consistent approach to whole system.	In progress	on going meetings	NOV-20	The workstreams are essential to enable a consistent approach to whole system across network licensees.	https://www.energynetworks.r rg/creating-tomorrows- networks/open-networks/	Dhe workstreams are working on what is required to enable efficient data sharing between network licensees.	None	This has a positive impact in that it will ensure consistency in the whole system approach to the development and operation of the network.	SSEN Transmission will benefit from knowldedge, data and information sharing wit other network licensees around whole system.	h involved in the workstreams and facilitate	ENA workstreams are important as they provide a platform to develop processes and tools which will ensure a consistency in taking whole system approach and coordination activities across network licensees.	5			
Related action n	no	No associated action		SEN Transmission, SPEN, IGET, BEIS													N/A	N/A	N/A N/A	
Coordination and ye cooperation activity	yes	SSEN/009	SSEN SI Transmission	HEPD	Discussions with SHEPD on a whole system solution between transmission and distribution to support connection of renewable generation in Argyll	In progress	on going meetings	Jun-21	A combined Transmission and Distribution solution will result in an efficient and economic solution that minimises costs to consumers	and-views/2022/03/argyll-		None	combined transmission and distribution	Discusions about cost recovery options for the distribution works are underway since SHEPD does not have allowance for the project.	The activity will be implemented as part of the wider Argyll project. The outcome of cost recovery of distribution works will inform future working on projects of this nature.	The activity has been adopted as part of the wider Argyll project because it's the right thing to do as it results in efficient and economi whole system solution.	ic			
Related action ye	yes	SSEN/009/A01	SSEN SI Transmission	HEPD						100							A clear process of dealing with projects that support a combined transmission and distribution whole system solution addressing issues who should deliver the distribution works, how should they be funded and expensive.	of	New SSEN/0	09
Coordination and ye cooperation activity	yes	SSEN/010	SHEPD SS	SEN Transmission, SHEPD	Discussions with SHEPD on how their Resilient as a Service project would benefit the transmission network in system restart and relieving network		Feb-21	Jan-21	If successfully implemented and scaled up this activity can help to	innovation.co.uk/raas/	SHEPD has shared with SSEN Transmission project conceptual designs [widely shared]	None	Overall this activity will have positive impacts as it will help to relieve	If scaled up, this activity will support the overal resilience of the network	this activity in terms of data sharing to ensure	We are a network for net zero and will support iniatives that promote increase in connection of renewable generation to the network and	e			
					contraints.				reduce network constraints as well a support system restart.	5			constraints on the network, provide support to system restart and potentially allow for connection of more renewable energy sources	v	that cross operational impacts are properly addressed.					
Related action n Coordination and ye		No associated action SSEN/011	SSEN SI	SEN Transmission, SHEPD HEPD	Discussions with SHEPD on options to minimise network reinforcement costs for connecting Glasvaar wind farm to the network	In progress	Mar-21	Mar-21	SHEPD involvement could drastically		SSEN Transmission has shared with SHEPD the location, transmission entry capacity and costs [Restricted sharing]	None				I The next stage will depend on the customer's decision as to which	N/A	N/A	N/A N/A	
cooperation activity			Transmission		consistent contracturing categorian within farm to the network				reduce network reinforcement costs		www.monumenury.copacity and costs [Restricted sharing]			combined transmission and distribution solutio will result in reduced network reinfocement costs thereby supporting connection of renewable generation to the network and contributing to net zero	essociated benéfits.	option to progress with.				
Related action n	no	No associated action	SSEN SI Transmission	HEPD						1							N/A	N/A	N/A N/A	
Coordination and yr cooperation activity	yes	SSEN/012	SSEN SI Transmission	HEPD, NGESO	Coordination activities with SHEPD and NGESD on the Shefland, Orkney and Western biles transmission projects	In progress	Mar-21	Sep-12	This is relevant to whole system because apart from connecting renewable generation from the Islands to the mainland, SSEN Transmission is working with SHEPD to ensure that these projects contribute to security of supply, decarbonisation of the islands and resolving local electricity asset	tland/	SSEN Transmission has shared with SHEPD and NGESD technica encoperts and costs [Restricted sharing]	None	distribution networks to fulfil their	d Positive impact on SSEN Transmission as the coordinated approach results in an efficient and economic investment on the network.	Continue with the coordination activities of between SSEN Transmission and SHEPD in supporting economic development in the Sottish Islands through connection of renewable generation to the grid and improving demand security	These activities are necessary to ensure coordinated efficient and economic whole system investment decision making.				
Related action ye	yes	SSEN/012/A01	SSEN SI Transmission	HEPD, NGESO					condition issues.								The action is to continue with the coordination activities in prioritising scheduling and sequencing of activities as the projects progress into	Jul-20	Improving SSEN/0	012
Coordination and ye	yes	SSEN/013	SSEN SI	HEPD, NGET, SPEN, SGN,	Coordination activities with SHEPD, NGET, SPEN and other stakeholders	in In progress	Dec-21	Apr-21	This is relevant to whole system	The linkt to reports will be	SSEN Transmission has shared presentation slides of its whole	None	Positive impact on whole system as othe	er By interracting with stakeholders and other	The next stage is to publish the revised whole	These activities are necessary to ensure coordinated, efficient and	delivery.			
cooperation activity			Transmission N	IGESÖ, BEIS, Öfgern, Local luthorities	the development of our whole system strategy and annual report.				because by working with other network licensees and stakeholders, SSE Transmission is able to share its knowledge and experience in its approach to whole system and in return it gets feedback that it can us to make relevant changes to its approach to whole system which wil benefit the total system.	added when the whole system page is active	system strategy and annual report [Widely sharing]		network licensees and stakeholders learn from SSE Transmission on how we are embedding whole system thinking within	In network licinsees on our whole system strateg and annual report, we show leadership in the n indurstry but we also get the feedback we nee to improve our whole system approach to investment decision making.	system strategy and our first whole system annual report this year.	economic whole system investment decision making.				
Related action n	no	No associated action	Transmission N	HEPD, NGET, SPEN, SGN, IGESO, BEIS, Ofgem, Local													N/A	N/A	N/A N/A	
Coordination and yr cooperation activity	yes	SSEN/014	SSEN N	luthorities IGESO, SPEN, /enders/manufacturers	Coordination activities with NGESO and SPEN on system operability issue following a number of system disturbances in Scotland. In particular, undertanding the causes of subsynchronous oscillations and how to resolve them	In progress	Jan-22	0ct-21	Through the coordination activities with other network licensees as well as the system operator, a holistic approach is being taken to resolve these operability issues which will benefit the security of the total	None	Shared models and technical reports with NGESO [restricted sharing]	None	to these operability issues will ensure the	The knowledge sharing from these coordinatio e activities has helped us to come up with the th most efficient and economic solutions to resol theses emerging system operability issues.	e projects to Ofgem which will mitigate the	To maintain the security of the electrcity system				
Related action ye	yes	SSEN/014/A01		IGESO, SPEN,					electricity system								Initiate projects to resolve operability issues in the north of scotland	Jun-22	New SSEN/0	014
			Transmission V	enders/manufacturers													following approval from Ofgem			



Details of all proposals received during a relevant period from system users to advance the efficient and economical operation of Electricity Distributors' and/or transmission owners' networks. Details of any system user proposals that have been implemented (or are being implemented) as well as a concise and clear summary of proposals not deemed to be apt for implementation, including the reason(s) for that decision.

Unique identifier for each row of the sheet (starting with xxxx/U/001 where xxxx refers to the licensee)	Licensee who is publishing register	Licensees and other stakeholders with whom collaboration was/is being carried out.	domestic customer; customer commercial; Group of domestic customers; Group of commercial customers; local authority; combined authority; other infrastructure networks; generators; aggregators etc.	Date on which the user suggestion was received	Details of the suggestion. Only those suggestions that improve the economy and efficiency of the whole system is to be considered, suggestions benefitting just one user is not to be included.	Details of the relevance to whole system	Action taken based on the suggestion. Could even be decision to not take forward.	Justification of the action resulting from the user suggestion.
Unique id	Licensee	Collaborating licensees	User category	Suggestion submission date (mm/yyyy)	Description of the suggestion	Whole system relevance	Description of the action taken on the suggestion	Justification of the action

We have not received proposals in this period. We encourage stakeholders to provide their proposals on the following link which is also available on our Whole System Hub.

https://www.ssen-transmission.co.uk/information-centre/whole-system-hub/

Alternatively you can contact us using the following email address: wholesystemtransmission@sse.com

