

WELCOME

GC0155

Clarification of Fault Ride Through Technical Requirements

Meeting 3

05 July 2022

Online Meeting via Teams

nationalgridESO

Agenda

Topics to be discussed

Lead

Welcome

Chair

Review of Actions Log

Chair

Updates on Actions 3, 9, 11

Terry Baldwin / Bieshoy Awad

Review and Finalise Draft Legal Text

All

Draft Workgroup Consultation Questions

Chair

Review Draft Workgroup Consultation Report

All

Terms of Reference

Chair

- Look through & check progress

AOB & Next Steps

Chair

- Conclude Workgroup Consultation Documents
- Open Workgroup Consultation

Members / Alternates & Observers

Role	Name	Representing
Chair	Banke John-Okwesa	Code Administrator (ESO)
Technical Secretary	Ruth Roberts	Code Administrator (ESO)
Proposer	Terry Baldwin	NGESO
Workgroup Member	Alan Mason	Oceanwinds
Workgroup Member	Alan Creighton	Northern Powergrid
Workgroup Member	Alastair Frew	Drax Power Station
Workgroup Member	Andrew Larkins	Sygensys
Workgroup Member	Andrew Vaudin	EDF
Workgroup Member	Bieshoy Awad	NGESO
Observer	David Griffiths	RWE Generation UK, RWE Renewables
Observer	Fiona Williams	NGESO
Workgroup Member	Forooz Ghassemi	NGET
Workgroup Member	Frank Martin	Siemens
Workgroup Member	Fraser Norris	SSE
Workgroup Member	Garth Graham	SSE Generation
Workgroup Member	Isaac Gutierrez	Scottish Power
Observer	Mike Kay	Independent
Workgroup Member	Nicola Barberis Negra	Orsted
Observer	Owen Curran	Siemens
Workgroup Member	Priyanka Mohapatra	Scottish Power
Workgroup Member	Ryan Tumilty	SSE
Workgroup Member	Sean Gauton	Uniper Energy
Workgroup Member	Tim Ellingham	RWE Generation UK, RWE Renewables
Workgroup Member (Alternate)	Julie Richmond	Scottish Power
Workgroup Member (Alternate)	Martin Aten	Uniper
Workgroup Member (Alternate)	Sridhar Sahukari	Orsted
Workgroup Member (Alternate)	Tobias Siepker	Siemens
Authority Representative	Shilen Shah	Ofgem



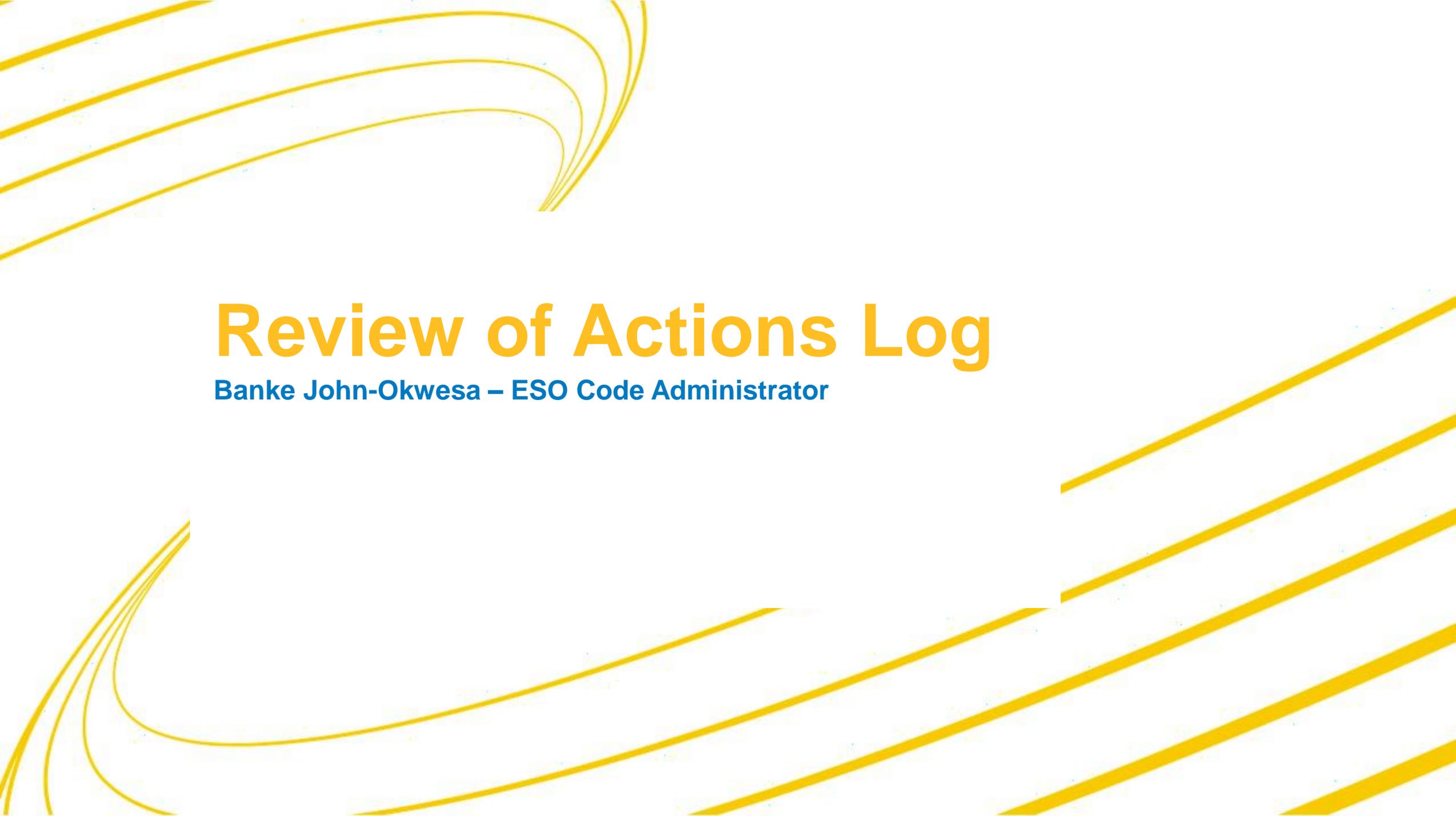
Timeline

Banke John-Okwesa – ESO Code Administrator



Timeline for GC0155

Milestone	Date	Milestone	Date
Proposal Presented to Panel	16 December 2021	Code Administrator Consultation	03 October 2021 – 03 November 2022
Workgroup 1 – Understand / discuss proposal and solution, note the scope and identify any possible alternative solutions, agree timeline and review terms of reference, agree next steps.	10 February 2022	Draft Final Modification Report (DFMR) issued to Panel	16 November 2022
Workgroup 2 – Refresher of modification requirements, Review of solution(s) and legal text, consider any alternatives, draft Workgroup consultation	07 June 2022	Panel undertake DFMR recommendation vote	24 November 2022
Workgroup 3 – Review draft legal text, finalise Workgroup consultation questions, consider any alternatives	05 July 2022	Final Modification Report issued to Panel to check votes recorded correctly (5 working days)	28 November 2022 – 02 December 2022
Workgroup (additional) – Finalise Workgroup Consultation proforma and report	12 July 2022	Final Modification Report issued to Ofgem	06 December 2022
Workgroup Consultation (15 Working Days)	18 July 2022 – 8 August 2022	Ofgem decision	TBC
Workgroup 4 – Assess Workgroup Consultation Responses, review legal text, carry out Alternative Vote (if applicable)	23 August 2022	Implementation Date	10 working days after Ofgem decision
Workgroup 5 – Finalise solution(s) and legal text, agree that Terms of Reference have been met, Review Workgroup Report and hold Workgroup Vote	07 September 2021		
Workgroup Report issued to Panel (5 working days)	21 September 2022		
Panel sign off that Workgroup Report has met its Terms of Reference	29 September 2022		



Review of Actions Log

Banke John-Okwesa – ESO Code Administrator

Action Number	Workgroup raised	Owner	Action	Comment	Due by	Status
3	WG1	TB	Find out how ESO define Overvoltage compliance following a fault / consider undervoltage aspects	Remained open to gain further information	WG2	Open
9	WG2	BA/TB	To review the Grid Code currently states on multiple fault ride through and the compliance associated to this.		WG3	Open
10	WG2	AF	To confirm offline with BA the detail in active power requirements figure 8		WG3	Open
11	WG2	BA/TB	A follow-on action from the Strawman presentation for NGESO to now analyse the requirements and to refine solution		WG3	Open
12	WG2	BJO	For code admin to review and update the modification timeline and add in an additional workgroup meeting and take to panel for agreement		WG3	Open
13	WG2	All	To provide Tony Johnson with any comments on the housekeeping amendments being made to the Grid Code as part of GC0155		WG3	Open

Review Draft Legal Text

Workgroup

The background features several thick, flowing yellow lines that curve and sweep across the page, creating a sense of movement and energy. These lines are primarily concentrated on the left and bottom edges, framing the central text.

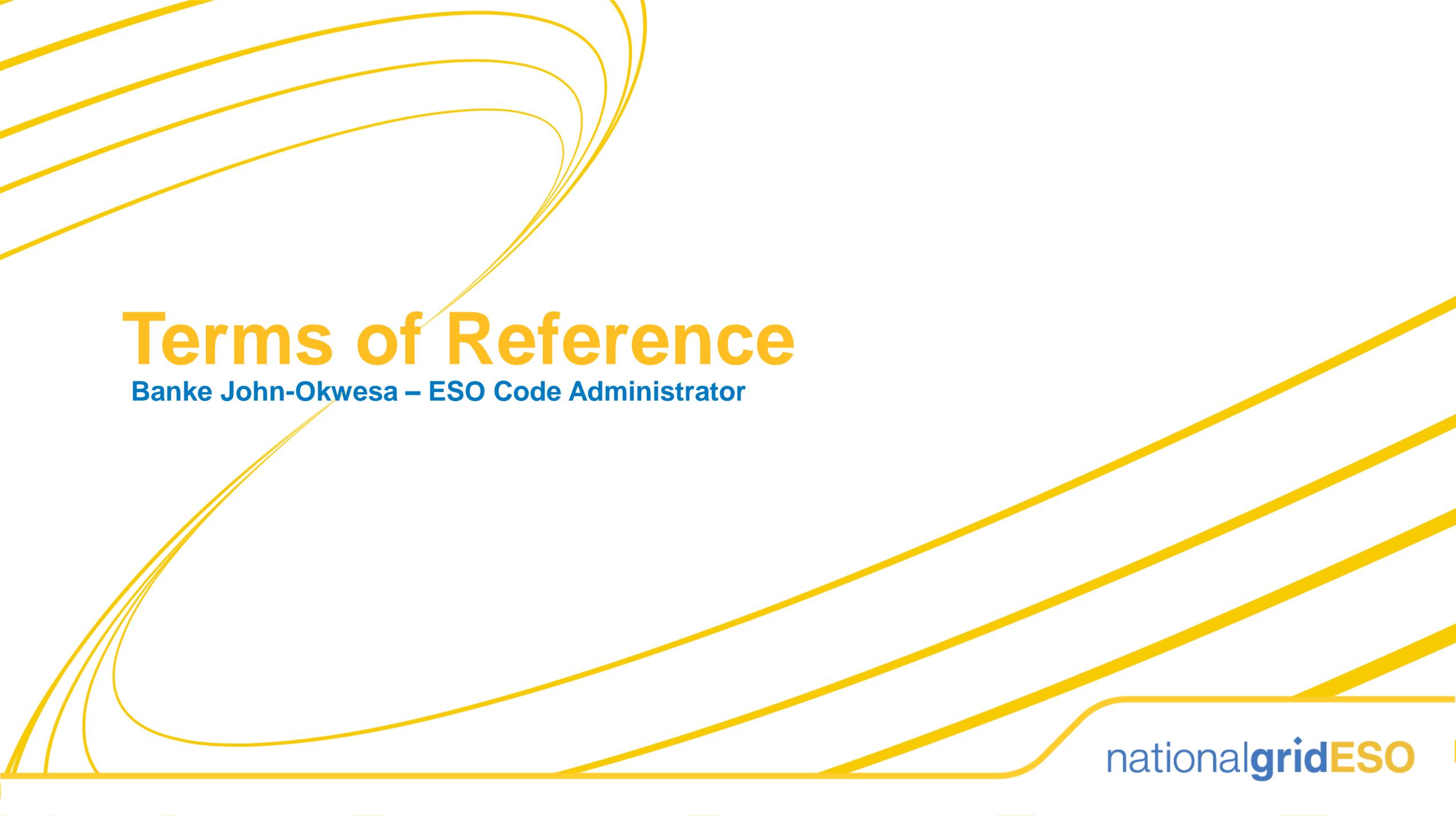
Draft Consultation Questions

Workgroup

The background features several thick, flowing yellow lines that curve and sweep across the page, creating a sense of movement and energy. These lines are primarily yellow, with some blue accents in the logo and sub-header.

Workgroup Consultation Report

Workgroup

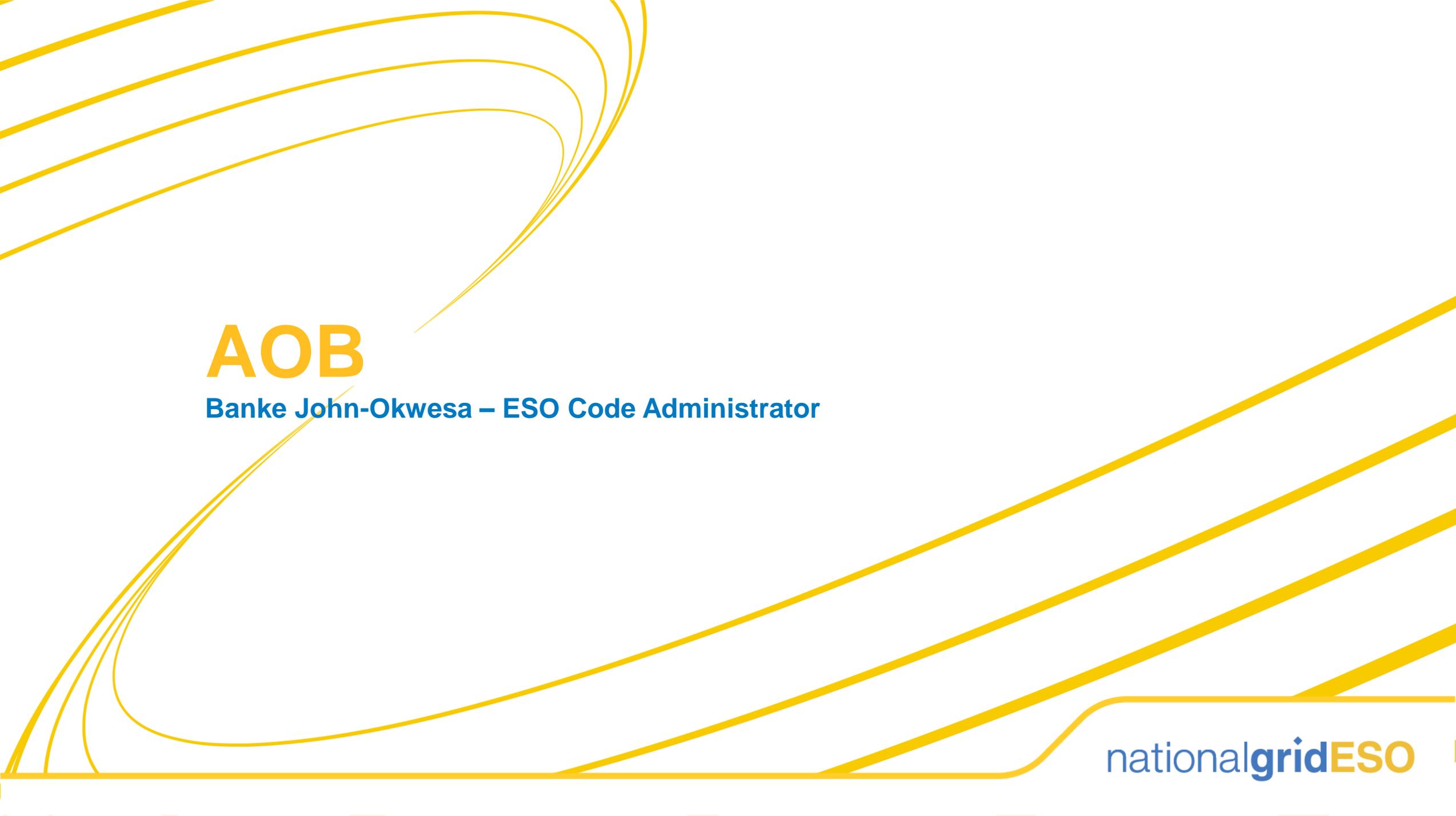
The background features several thick, vibrant yellow lines. Some are curved and looped in the upper left, while others are straight and parallel, sloping upwards from the bottom left towards the right side of the page.

Terms of Reference

Banke John-Okwesa – ESO Code Administrator

GC0155 – Terms of Reference

Workgroup Term of Reference	Location in Workgroup Report
a) Implementation and costs;	
b) Review draft legal text should it have been provided. If legal text is not submitted within the Grid Code Modification Proposal the Workgroup should be instructed to assist in the developing of the legal text; and	
c) Consider whether any further Industry experts or stakeholders should be invited to participate within the Workgroup to ensure that all potentially affected stakeholders have the opportunity to be represented in the Workgroup. Demonstrate what has been done to cover this clearly in the report	
d) Consider Electricity Balancing Regulation (EBR) implications	
<p>e) Minor changes and clarifications to the existing Grid Code Fault Ride Through (FRT) requirements specifically but not limited to consideration of the following areas:</p> <ul style="list-style-type: none"> i. Clarify instances where User plant is required to trip in order to clear transmission system faults ii. Amending requirements for generating maximum reactive current during faults where these may be unachievable for some generators iii. Amending post-fault active power requirements to consider whether generators at low load may have greater levels of oscillation than permitted iv. To consider clarifying and or defining requirements for over-voltage following a fault 	
f) Identify and address any cross code impacts on other codes especially Distribution Code (e.g. G99 requirements)	TBC

The background features several decorative yellow lines. On the left, there are several curved, overlapping lines that sweep upwards and to the right. On the right side, there are three parallel, straight lines that slope upwards from the bottom left towards the top right. At the bottom right, there is a yellow shape that resembles a stylized 'L' or a corner bracket, framing the logo.

AOB

Banke John-Okwesa – ESO Code Administrator

The slide features several decorative yellow lines. In the top-left corner, there are several overlapping, curved lines that sweep across the page. In the bottom-right corner, there are four parallel diagonal lines that slope upwards from left to right, ending in a horizontal line that forms a platform for the logo.

Next Steps

Banke John-Okwesa – ESO Code Administrator

- Conclude Workgroup Consultation Documents
- Open Workgroup Consultation