Mod Review Group 131 Draft Business Rules

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Scope

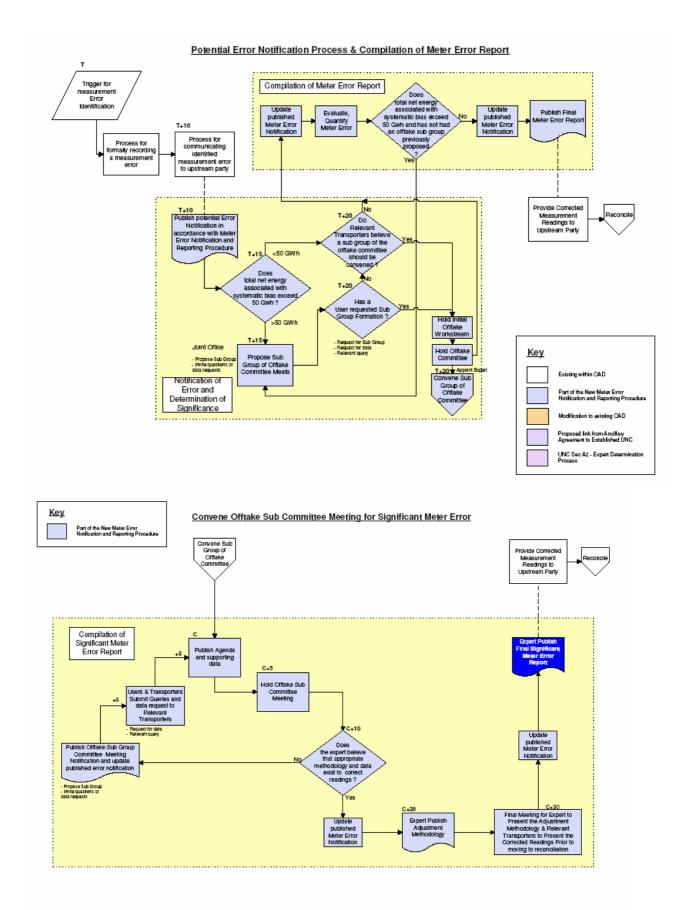
The attached Business Rules have been developed to support the Mod Review Group 131 workings on the LDZ RbD Notification Process.

Note:-

These business rules will remain in a draft status until all Transporters have fully reviewed and signed on to the document.

Draft Business Rules: High level Process Flow

Draft for Comment



<u>1 - Meter Error Trigger Points</u>

There are various meter error trigger points within OAD activities which will link into the new Measurement Error Notification Processes which will form the UNC Ancillary Document.

Some Trigger Points identified by the review group are:-

- Daily Processing of meter readings;
- Site maintenance visits;
- Annual Meter Validation;
- Exception Validation;
- Site Audits
- Any other event that causes the Downstream Party directly or indirectly to carry out checks

2 - Template for "Measurement Error Notification Mechanism"

Framework for Measurement Error Notification

- Unique Reference Number
- Date Error first Notified
- Gas Transporter (Downstream & Upstream)
- LDZ
- Offtake
- Offtake Average Annual Flow
- A brief description of the believed error cause and effect
- The date when the Meter Error was discovered, Started (or Last Good Read) & Corrected
- Systematic Bias (Yes or No)
- Reason Error was detected
- Estimated Significance (Low/Medium/High)
 - (Low 0 to 30 GWh, Medium 30 to 50 GWh, High Over 50 GWh)
- Estimated Significance
- Assessed Volume impact (MSCM)
- Estimated Energy
- Over or Under Read
- Error Status
 - o Error Notified
 - Measurement Error Report in construction
 - o Significant Measurement Error Report in construction
 - Measurement Error Report Published
 - o Significant Measurement Error Report Published
 - Awaiting first available Invoice
 - o Invoiced
 - Closed / No Rec. Required
- Anticipated MER Publication Date
- Latest Notification Update Date

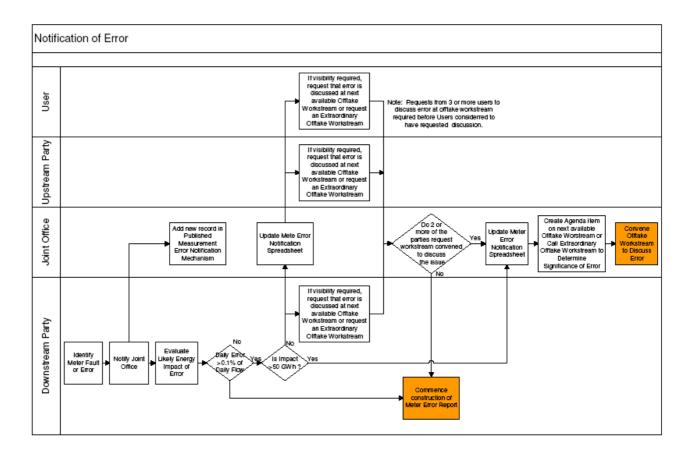
3: Framework for Process and Update Frequency

In development

Spreadsheet template for framework



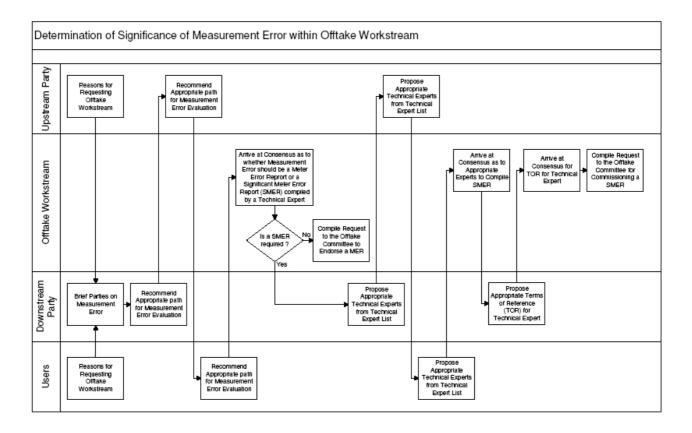
4 - Identification and Notification of Potential Measurement Errors



- Downstream Party must upon identification of a potential measurement error:-
 - Provide details to the Joint Office for publication as part of the agreed "Measurement Error Notification Mechanism"
 - o Undertake a reasonable estimate as to the likely kWh
 - o Identify if the estimated impact exceeds 50 GWh
 - For errors estimated to be greater than 50 GWh, submit a request, to the Joint Office, to discuss at the next available Offtake Workstream or request an extra ordinary Offtake Workstream is convened to discuss the issue
 - For errors estimated to be less than 50 GWh, Determine whether it merits submitting a request to the Joint Office to discuss at the next available Offtake Workstream or request an extra ordinary Offtake Workstream is convened to discuss the issue

- If the error represents less than 0.1% of the end of day Offtake Quantities for all gas days no reconciliation will be made and a null report written.
- Update the "Measurement Error Notification Mechanism" with the latest available information, at a frequency of at least once every calendar month
- Upstream Party
 - For notified errors estimated to be less than 50 GWh, Determine whether it merits submitting a request to the Joint Office to discuss at the next available Offtake Workstream or request an extra ordinary Offtake Workstream is convened to discuss the issue
- Users
 - For notified errors estimated to be less than 50 GWh, Determine whether it merits submitting a request to the Joint Office to discuss at the next available Offtake Workstream or request an extra ordinary Offtake Workstream is convened to discuss the issue
- Joint Office
 - Create a new record on the "Measurement Error Notification Mechanism" for any new errors identified by a Downstream Party
 - Update the "Measurement Error Notification Mechanism" with all updated information supplied by the relevant Downstream Party
 - Track requests for Offtake Workstream to be convened on a specific issue and determine where a consensus for a meeting is reached.
 - For notified errors estimated to be less than 50 GWh, have 3 or more users determined it merits submitting a request to the Joint Office to discuss at the next available Offtake Workstream or request an extra ordinary Offtake Workstream is convened to discuss the issue
 - Convene Offtake Workstream meetings to discuss Measurement Error Issues identified by Upstream Party / Downstream Party / Users in accordance with the Chairman's Guidelines including
 - Notification of meetings at least ten Business Days in advance.
 - Agenda publication at least five Business Days in advance.
 - Meetings chaired by the Joint Office
 - Minutes, other relevant papers and presentations published within five Business Days of the meeting.
 - General principles of consensus.
- A consensus of two or more of the three parties (Downstream Party, Upstream Party or Users) is required for any issue estimated <50GWh to be submitted to the Joint Office to discuss at the next available Offtake Workstream or to request that an extra ordinary Offtake Workstream is convened to discuss the issue (where the next scheduled Offtake Workstream is over one calendar month away).

5&6: Determination of Significance of Measurement Error and Appropriate Path



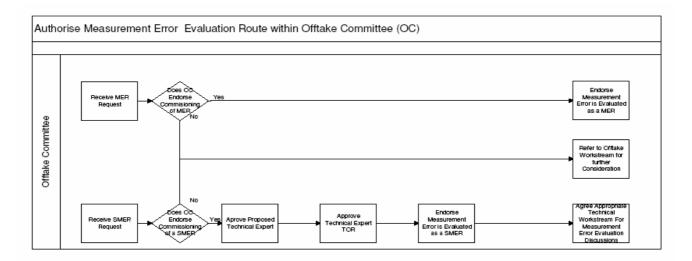
- Upstream Party / Users
 - Convening parties provide justification overview for requesting submission of measurement issue estimated <50GWh to Offtake Workstream
- Downstream Party at First Meeting of Offtake Workstream should:
 - o Present the measurement error to the Offtake Workstream including
 - Background to the measurement error
 - Cause of the measurement error
 - Estimated impact of the measurement error
 - Where estimated error <50GWh
 - Propose whether the evaluation of the Measurement Error should be undertaken by an independent technical expert as a Significant Measurement Error Report or whether a Measurement Error Report should be compiled by the Downstream Party, giving the reasoning behind the approach.
 - Where consensus a SMER is required

- Recommend appropriate Independent Technical Experts from the predefined list of independent technical experts maintained by the Offtake Committee, providing reasons as to the selection.
- Propose appropriate Terms of Reference for the Independent Technical Expert that would undertake the compilation of a Significant Measurement Error Report
- Users present at the first meeting of Offtake Workstream should:-
 - Where estimated error <50GWh
 - Propose whether the evaluation of the Measurement Error should be undertaken by an Independent Technical Expert as a Significant Measurement Error Report (3 or more users must agree) or whether a Measurement Error Report should be compiled by the Downstream Party, giving the reasoning behind the approach
 - Where consensus a SMER is required
 - Nominate Independent Technical Experts from the predefined list of Technical Experts
- Upstream Party at the First Meeting of Offtake Workstream should:-
 - Where estimated error <50GWh
 - Propose whether the evaluation of the Measurement Error should be undertaken by an Independent Technical Expert as a Significant Measurement Error Report or whether a Measurement Error Report should be compiled by the Downstream Party, giving the reasoning behind the approach
 - Where consensus a SMER is required
 - Nominate Independent Technical Experts from the predefined list of Technical experts
- Offtake Workstream shall:-
 - Arrive at a consensus as to whether the measurement error shall be compiled as a Significant Measurement Error Report by an Independent Technical Expert from the predefined approved list of Technical Experts or as a Measurement Error Report compiled by the Relevant Downstream Party
 - Arrive at a consensus as to the appropriate Independent Technical Experts that should be proposed to compile the Significant Measurement Error Report from the predefined approved list of Technical Experts
 - Arrive at consensus as to the appropriate Terms of Reference for the Independent Technical Expert to compile the Significant Measurement Error Report
- Chairman of the Offtake Workstream shall:-
 - Compile the request to the Offtake Committee to Authorise the Compilation of a Measurement Error Report

Or

 Compile the request to the Offtake Committee to Authorise the Compilation of a Significant Measurement Error Report (Including Terms of Reference & Proposed Independent Technical Experts) • A consensus of two or more of the three parties (Downstream Party, Upstream Party or Users (3 or more Users must agree)) is required for any issue estimated under 50GWh to be compiled as a Significant Measurement Error Report.

<u>7: Business Rules for the Authorisation of Significance of the Measurement</u> Error by the Offtake Committee



- The Offtake Committee Quorum, upon the receipt of a request for a Significant Measurement Error Report shall:-
 - Endorse recommendation for the measurement error to be compiled as a Significant Measurement Error Report

Or

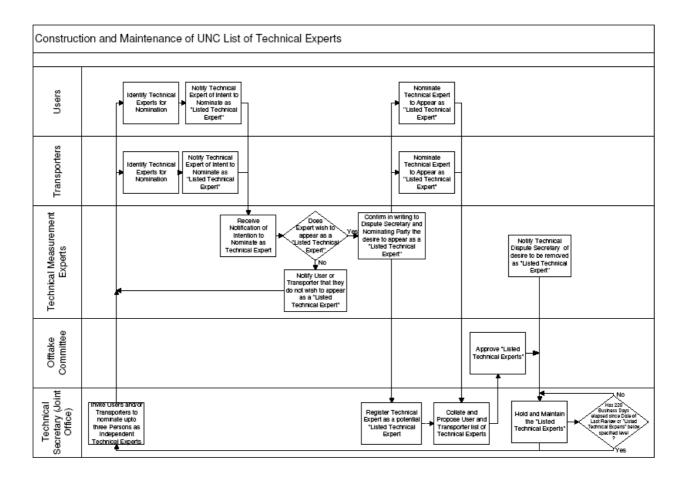
- Refer measurement error to the Offtake Workstream for further consideration
- o Upon endorsement of Significant Measurement Error Report
 - Review proposed Independent Technical Experts and select appropriate party to appoint
 - Review proposed Terms of Reference and approve TORs for use on this Significant Measurement Error Report
 - Establish and Authorise the establishment of appropriate Technical Workstream / sub committee for discussions for this Significant Measurement Error Report

- The Offtake Committee Quorum, upon the receipt of a request for a Measurement Error Report shall:-
 - Endorse recommendation for the measurement error to be compiled as a Measurement Error Report

Or

• Refer measurement error to the Offtake Workstream for further consideration

8: Framework for Approved List of Independent Technical Experts



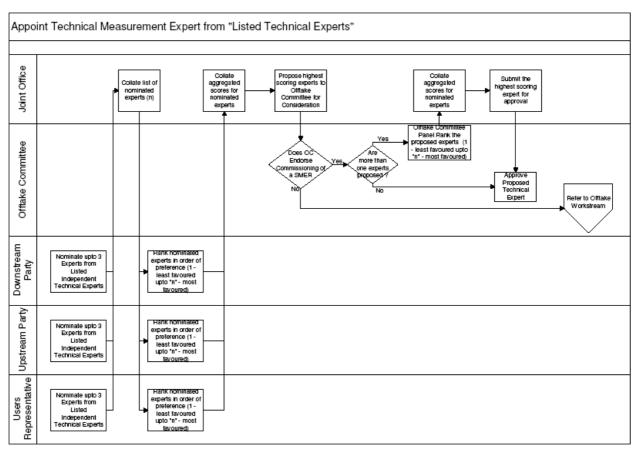
- Technical Secretary
 - Invite Users and/or transporters (Upstream & Downstream Parties) to nominate up to three persons as independent technical experts
 - Upon receipt in writing of desire to appear as a listed technical expert, add to register as potential listed expert.
 - Upon receipt of nominations, register potential listed expert as a proposed listed Independent Technical Expert
 - Collate and propose User and Transporter list of Independent Technical Experts to Offtake Committee for approval
 - Upon receipt of approved Listed Independent Technical Experts from Offtake Committee hold and maintain the Listed Independent Technical Experts

- Undertake review of Listed Independent Technical Experts at least annually
- Offtake Committee
 - Upon receipt of proposed list of Independent Technical Experts
 - Endorse appropriateness of expertise
 - Approve technical experts
- Technical Measurement Experts
 - Confirm in writing to the dispute secretary and nominating party the desire to appear or to not appear as a Listed Independent Technical Expert
 - Upon desire to withdraw as a Listed Independent Technical Expert, notify the Technical Dispute Secretary of wish to be removed from list.
- Transporters (Upstream & Downstream Parties)
 - Nominate up to three Independent Technical Experts to appear as listed technical expert and notify Technical Secretary
- Users
 - Nominate up to three Independent Technical Experts to appear as listed technical expert and notify Technical Secretary

Framework:

- Name of Expert
- Expert Organisation
- Area of Expertise (OPM Orifice Plate Meters, TM Turbine Meters, USM Ultrasonic Meters, Coriolis Meters CoM, C Chromatographs)
- Date of first registration
- Date of last review
- Renewal Date:-
 - Auto-populated based 220 business days from "date of last review"
- Associated Business Rules
 - List must contain more than one registered expert for each area of expertise

<u>9: Framework for Appointment of Independent Technical</u> Expert



- Users Representative
 - o Nominate up to three experts from Listed Technical Experts to Joint Office
 - Upon receipt of the list of nominees, rank nominated experts in order of preference (1 to n) 1 least favoured, n most favoured, and provide to Joint office
- Upstream Party
 - o Nominate up to three experts from Listed Technical Experts to Joint Office
 - Upon receipt of the list of nominees, rank nominated experts in order of preference (1 to n) 1 least favoured, n most favoured, and provide to Joint office
- Downstream Party
 - o Nominate up to three experts from Listed Technical Experts to Joint Office
 - Upon receipt of the list of nominees, rank nominated experts in order of preference (1 to n) 1 least favoured, n most favoured, and provide to Joint office
 - Upon confirmation of the expert, establish the contract with the Independent Technical Expert, including the agreed Terms of Reference.

- The Downstream Party will cover the Independent Technical Experts costs associated with the compilation of the Significant Measurement Error Report.
- Offtake Committee
 - Where more than 1 independent technical expert is proposed
 - Transporters rank the proposed independent technical experts from 1-n (1 least favoured, n most favoured) and provide to joint office
 - Approve proposed, or most favoured where more than one, independent technical expert
- Joint Office
 - Collate list of nominated independent technical experts (n) and provide to Downstream Party, Upstream Party and User Representatives
 - Collate aggregated scores for nominated independent technical experts and propose the highest scoring expert (experts in the case of a tie) to the Offtake Committee for consideration
 - Collate aggregated scores for nominated independent technical experts from Offtake Committee review
 - Submit the highest scoring independent technical expert to the Offtake Committee for approval

10 - Generic Terms of Reference for approved Independent Technical Expert

- Develop a Significant Measurement Error Report using the most appropriate data and methodologies to ensure that as accurate an error assessment in the Measured Data can be made in an economic and efficient manner.
- The independent technical expert is to comply with the Terms of Reference defined for the Specific Measurement error
- The independent technical expert is to provide at least monthly updates to the Sub Group/workstream sanctioned to discuss the relevant measurement error on developing methodologies, technical issues identified (all received by D-5 of the meeting to be reviewed), relevant queries raised, data requests submitted and evidence requested.
- The appointed independent technical expert will determine and consider which if any Technical Measurement Issues submitted will have a material effect on any critical data item connected to the identified measurement error contributing to the determination of the magnitude of error in the Measured Data.
- The decision as to the most appropriate methodologies and data will rest solely with the appointed Technical Measurement Expert taking account of any Technical Measurement Issues raised during the development and compilation of the Significant Measurement Error Report
- The decision as to when the Significant Measurement Error Report is a robust technical evaluation of the magnitude of error in Measured Data will rest solely with the appointed independent technical expert
- The independent technical expert will present to the sanctioned Sub Group/Workstream the Significant Measurement Error Report and will review

all the Technical Measurement Issues Identified and discounted as immaterial to the accurate evaluation of error in the Measured Data.

- The appointed independent technical expert will determine what data is required from the Relevant Transporters in order to ensure appropriate data supports the evaluation of error in Measured Data.
- The appointed independent technical expert will determine what supporting evidence is required from the Relevant Transporters in order to support the appropriate methodologies and data in the evaluation of error in Measured Data.
- The appointed independent technical expert will determine what relevant questions should be submitted to the Relevant Transporters in order to ensure appropriate methodologies and data are used in the evaluation of error in Measured Data.
- The appointed independent technical expert will provide the final Significant Measurement Error Report to the Downstream Party in the agreed Template for Publication.

Template for Publication

To be developed

11 – Framework for the Offtake Sub Committee Meeting

- Independent Technical Expert
 - Provide update on measurement issue
 - Review issues raised on Technical Measurement Issues Log (TMIL) by D-5 of the meeting
 - Decision made as to requirement for further meeting prior to producing Significant Measurement Error Report
- Users
 - Submit technical measurement issue to Joint Office (TMIL) that may impact critical data item impacted by identified measurement error
- Upstream Party
 - Submit technical measurement issue to Joint Office (TMIL) that may impact critical data item impacted by identified measurement error
- Downstream Party
 - Submit technical measurement issue to Joint Office (TMIL) that may impact critical data item impacted by identified measurement error
- Joint Office
 - o Capture technical measurement issues

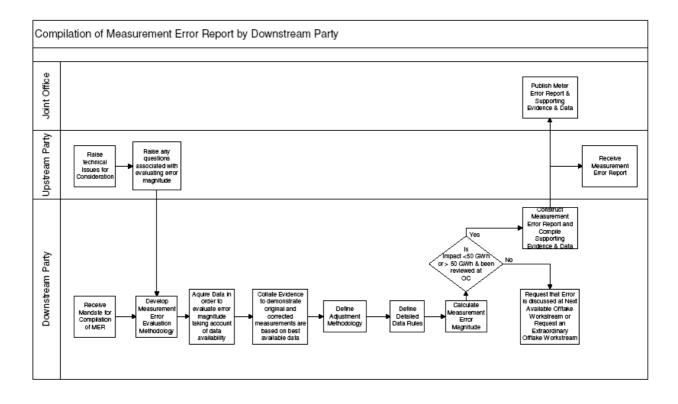
<u>12 – Framework for Final Meeting where Independent Technical Expert in</u> <u>conjunction with the Downstream Party Presents Methodology and Data</u> <u>employed in Significant Measurement Error Report</u>

• Provide overview of methodology used in calculation of revised measurements

Draft for Comment

- Present data rules employed in calculation of revised measurements
- Review all items on TMIL and reasons for accounting for / discounting
- Present corrected readings

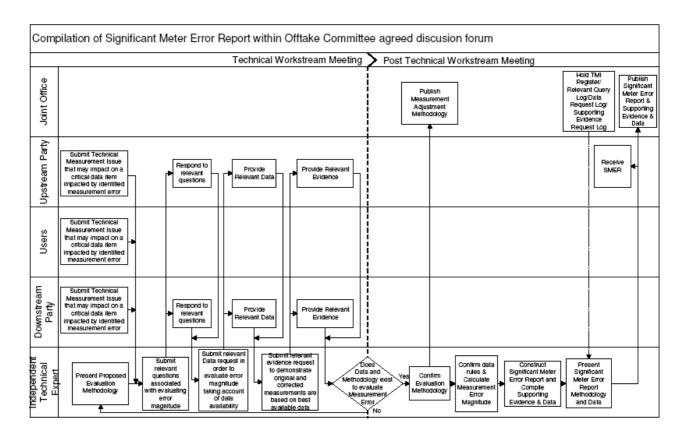
13 - Business Rules for the Compilation of a Measurement Error Report



- The Measurement Error Report:
 - o is a contractualised document
 - o is constructed by the Downstream Party
 - all data and evidence gathered in order to compile the Measurement Error Report will construe the auditable records
 - will define the magnitude of the measurement error for every gas day within the error period
 - will give the total net error magnitude as a volume and will specify if it represents an over or under registration
- The Downstream Party:-
 - defines the technical methodology to derive a robust evaluation of the magnitude of measurement error that is economic and efficient

- is responsible for undertaking the calculation of the measurement error in accordance with the methodology, to the appropriate tolerances and in accordance with the defined data rules
- defines the data requirements for accurate evaluation of the error magnitude
- defines the evidence required to demonstrate that the original and corrected measurements are based on the best available data
- \circ $\;$ defines the duration of the measurement error period
- is required to provide detailed data rules
- is responsible for acquiring the data for the evaluation of the error magnitude in a timely manner
- is required to acquire the evidence to demonstrate that the original and corrected measurements are robust in a timely manner
- The Upstream Party:-
 - is required to notify to the Downstream Party of any technical issues that may impact upon the methodology or data to be employed in the evaluation of the error in a timely manner
 - is required to provide the Downstream Party with any reasonable data required in order to evaluate the measurement error
 - o receive the Measurement Error Report
- The Joint Office:-
 - Are required to publish Measurement Error Reports notified to them by the Downstream Party

<u>14 - Business Rules for the Compilation of a Significant Measurement Error</u> <u>Report</u>



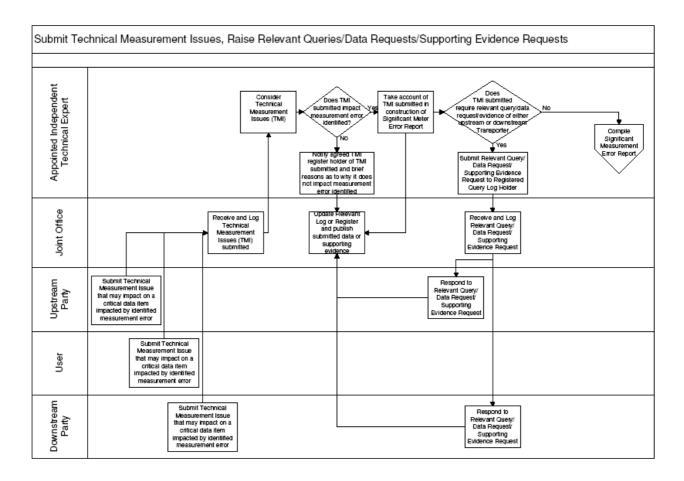
- The Significant Measurement Error Report:-
 - is a contractualised document.
 - evaluation of error magnitude is binding on all parties (Users & Transporters)
 - is constructed by the independent technical expert approved by the Offtake Committee
 - all data and evidence required by the independent technical expert in order to compile the Significant Measurement Error Report will be construed as auditable records
 - will define the magnitude of the measurement error for every gas day within the error period
 - will give the total net error magnitude as a volume and will specify if it represents an over or under registration.
- The Independent Technical Expert:-
 - defines the technical methodology to derive a robust evaluation of the magnitude of measurement error that is economic and efficient.
 - defines the data requirements for accurate evaluation of the error magnitude
 - o is required to provide detailed data rules

- defines the evidence required to demonstrate that the original and corrected measurements are based on the best available data.
- o defines the duration of the measurement error period
- is responsible for applying the defined methodology and data rules to quantify the measurement error
- present proposed evaluation methodology to the group sanctioned by the Offtake Workstream
- o review all technical measurement issues raised
- The Downstream Party:-
 - is responsible for providing the data requested by the independent technical expert for the evaluation of the error magnitude in a timely manner
 - is required to provide the evidence the independent technical expert has requested to demonstrate that the original and corrected measurements are robust in timely manner
 - is required to answer technical questions raised by the appointed independent technical expert associated with the evaluation of the measurement error
- The Upstream Party:-
 - is required to notify to the Independent Technical Expert of any technical issues that may impact upon the methodology or data to be employed in the evaluation of the error in a timely manner
 - is responsible for providing the data requested by the independent technical expert for the evaluation of the error magnitude in a timely manner
 - is required to answer technical questions raised by the appointed independent technical expert associated with the evaluation of the measurement error
- The Users:-
 - are required to notify to the independent technical expert of any technical issues that may impact upon the methodology or data to be employed in the evaluation of the error in a timely manner
- The Joint Office:-
 - are required to publish evaluation methodologies and Significant Measurement Error Reports notified to them by the independent technical expert

15: Framework for Technical Sub Committee of Offtake Committee & Quorum

Captured under 11

<u>16 - Framework for Technical Issues, Relevant Queries, Data Requests &</u> <u>Supporting Evidence Requests</u>



Technical Measurement Issue Framework

- Submitting Organisation
- Submitting Party Contact Details
 - o Name
 - o Business Number
 - o Mobile Number
 - Email Address
 - o Fax Number
- Technical Measurement Issue Description
- Anticipated Impact on critical data item used in evaluation of measurement error magnitude
- Date of submission

Technical Measurement Issue Register

- Unique Query Issue ID
- Submitting Organisation
- Submitting Party Contact Details
 - o Name

- o Business Number
- o Mobile Number
- o Email Address
- o Fax Number
- Technical Measurement Issue Description
- Anticipated Impact on critical data item used in evaluation of measurement error magnitude
- Date of submission
- Technical Measurement Issue Status (Accepted by independent technical expert, Rejected by independent technical expert)
- Rejection Reason (brief narrative of reason why submitted Technical measurement issue would not materially impact the error assessment)
- Date of Rejection

Relevant Query Framework

- Date query submitted
- Linkage to previous queries raised
- Target Party for Query (Upstream Party and/or Downstream Party)
- Nature of query (a technical measurement question associated with the measurement error identified at the relevant measurement station which may impact the evaluation of error in the Measured Data).

Relevant Query Log

- Unique Query ID
- Date query submitted
- Linked Query IDs
- Target Party for Query (Upstream Party and/or Downstream Party)
- Nature of query
- Query Response
- Query Status (Query Submitted, Awaiting Response, Responded)
- Date of query response

Data Request Framework

- Date data request submitted
- Linkage to previous Data Requests raised
- Target Party for Data Request (Upstream Party and/or Downstream Party)
- Data Requested (technical measurement data associated with the measurement error identified at the relevant measurement station which may impact the evaluation of error in the Measured Data)
- Required Data Format

Relevant Data Request Log

- Unique Data Request ID
- Date Data Request submitted
- Linked Data Request IDs

- Target Party for the Data Request (Upstream Party and/or Downstream Party)
- Data Requested
- Data Request Status (Data Request Submitted, Awaiting Response, Retrieving Data, Data Supplied & Published, Data Unavailable)
- Anticipated Data Acquisition Date (for status "Retrieving Data" only)
- Data Availability reason (for status "Retrieving Data" and "Data Unavailable")
- Date of Data Supply

Supporting Evidence Request Framework

- Date Supporting Evidence Request submitted
- Linkage to previous Supporting Evidence Requests raised
- Target Party for Supporting Evidence Request (Upstream Party and/or Downstream Party)
- Supporting Evidence Requested (technical Supporting Evidence which supports the evaluation of error in the Measured Data)

Supporting Evidence Request Log

- Unique Supporting Evidence Request ID
- Date Supporting Evidence Request submitted
- Linked Supporting Evidence Request IDs
- Target Party for the Supporting Evidence Request (Upstream Party and/or Downstream Party)
- Supporting Evidence Requested
- Supporting Evidence Request Status (Supporting Evidence Request Submitted, Awaiting Response, Supporting Evidence Supplied & Published, Supporting Evidence Unavailable)
- Supporting Evidence Unavailable reason
- Date of Supporting Evidence Supply

<u>17 – Publication of Evaluation Methodology for Significant Measurement Error</u>

- Independent technical expert
 - provide the evaluation methodology for a Significant Measurement Error Report for publication
- Joint Office
 - Publish the evaluation methodology for a Significant Measurement Error Report on the Joint Office Website

<u> 18a – Publishing Significant Measurement Error Reports</u>

- Independent technical expert
 - provide the Significant Measurement Error Report for publication in the appropriate template as per the Terms of Reference
- Downstream Party

- ensure the publication of the Significant Measurement Error Report
- Joint Office
 - publish the Significant Measurement Error Report on the Joint Office Website

<u> 18b – Publishing Measurement Error Reports</u>

- Downstream Party
 - Provide the Measurement Error Report for publication
- Joint Office
 - o publish the Measurement Error Report on the Joint Office Website