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Regulatory Procedure

Submission process for Licensees seeking approval to use an Internal Capital Model to calculate the Prescribed Capital Requirement

1. Statement of Objectives

1.1 This Regulatory Procedure sets out the process that a Licensee should undertake when seeking approval from the Authority to use an Internal Capital Model ("ICM") to calculate its Prescribed Capital Requirement ("PCR"). This Regulatory Procedure should be read in conjunction with the Statement of Guidance for Licensees seeking approval to use an Internal Capital Model to calculate the Prescribed Capital Requirement ("SoG").

1.2 There are three key stages to the application and review process:
- 1.2.1 the Initial Review Process;
- 1.2.2 the Formal Application Process and;
- 1.2.3 Post-Approval Monitoring.

1.3 A process chart providing an overview of the ICM application and review process is located at Schedule 1. All stages within the application and review process are discussed in further detail throughout this Regulatory Procedure.

1.4 This procedure applies to licensees that are eligible as per the Insurance Law (the "Law") and regulations made thereunder to seek the Authority's approval to use an ICM to calculate the PCR (hereafter referred to as "Licensee").

2 Definitions

2.1 An ICM or "internal capital model" means a risk management system developed by a Licensee to analyse its overall risk position, to quantify risks and to determine the economic capital required to meet those risks.

2.2 A PCR or "prescribed capital requirement" means the total risk based capital that a Licensee must maintain in order to operate in a safe and sound manner as set out in Schedule 1 of The Insurance (Capital and Solvency) (Classes B, C and D Insurers) Regulations, 2012.

3 Introduction

3.1 The Insurance Law, as amended, and regulations made thereunder permit certain insurers licensed by the Authority to use an internal capital model to calculate their prescribed capital requirement, subject to the Authority's approval. The Authority has issued this Regulatory Procedure to provide guidance to Licensees on the steps that must be followed and the documentation to be submitted when seeking approval to use an ICM to calculate the PCR.

3.2 A Licensee seeking approval to use its ICM (whether a full or partial ICM) to calculate the PCR is encouraged to contact the Authority to hold initial discussions on the ICM application and review process. Licensees should contact the Head or Deputy Head of the Authority's Insurance Division for this purpose.

3.3 The Authority requires signed approval by the Board of Directors of any application for Initial Review or Formal Application to the Authority. The Board of Directors is also required to formally acknowledge the communication of the results of the ICM review including the Initial Review feedback, conditions and post-approval reporting requirements.

3.4 Where a Licensee is represented by an insurance manager in accordance with Section 6 of the Law, the responsibility and involvement of the insurance manager in respect of the ICM will be determined by the Licensee. The Licensee should clearly define the insurance manager's role and responsibilities with regard to the ICM as part of its presentation to the Authority during the Initial Review. Further details on this presentation are located at Schedule 2.

3.5 The ICM review will involve extensive dialogue and may involve requests for supplemental information between the Licensee and the Authority. The review will take place both on an on-site and off-site basis. In general, the review process is expected to include:

3.5.1 A review of the Licensee's documentation related to the ICM. It should be highlighted that the Authority will rely on the Licensee's existing documentation to the extent practicable in order to keep documentation prepared solely for regulatory purposes to a minimum.

3.5.2 Meetings and discussions with the Licensee's Board of Directors, management, and other individuals who have specific responsibilities for the ICM.

3.5.3 A review of responses to the Authority's requests for further information.

3.5.4 A detailed demonstration of the ICM.

3.6 The Licensee will be responsible for the full cost of the ICM review. The full cost of the ICM review will consist of administrative fees and review fees. The administrative fees are directly payable to the Authority. The review fees are those paid to a third party service provider(s) that will be contractually engaged by the Authority. Irrespective of whether or not the application is withdrawn or is not approved, the administrative fees and the review fees are non-refundable. There will be separate fees for the Initial Review process and the Formal Application processes.

3.7 The review fees will depend on the nature, scale and complexity of the Licensee's ICM. It will further depend on the Licensee's internal time and resources, use of external consultants and reviewers, the Authority's internal time and resources and any external consulting resources engaged by the Authority.

3.8 The overall timeframe expected for the review of the ICM will be dependent on the nature, scale and complexity of the ICM. The quality of information provided to the Authority and the accessibility to the information will also determine the length of the review.

3.9 The Authority intends to rely on independent reviews of the Licensee's ICM, including reviews conducted by other regulatory authorities. The extent of reliance will be determined by the Authority based on the level of objectivity, qualifications, skills and experience of the independent reviewer.

3.10 An internal CIMA committee will make the final decision on behalf of the Authority as to whether the ICM will be approved for use to calculate the PCR.

3.11 If the Licensee decides to withdraw from the ICM review process at any stage, the Licensee must provide written notice of its withdrawal to the Authority and provide a rationale for the decision. The Licensee should be aware that the administrative fees and the review fees are non-refundable.

4 Initial Review Process

Purpose

This is the initial review stage in the ICM framework whereby the Authority will provide a view on how prepared the Licensee is to submit a formal ICM application. The initial review process incorporates the submission of documentation and presentations to the Authority from which the Authority can determine whether the ICM standards outlined in the SoG have been largely complied with. It is intended to be an interactive and constructive process which supports the objective of the Licensee obtaining approval of its ICM.

General Guidance

4.1 Open discussion and interaction between the Authority and the Licensee is encouraged prior to and during the initial review process. At the beginning of the initial review process, the Authority and the Licensee will establish a tentative schedule for reviews to be conducted.

4.2 A Licensee must continue to meet the PCR to the required standard as prescribed in the regulations until approval of the ICM is granted. The Licensee may only use its ICM to calculate the PCR upon receiving formal acknowledgement from the Authority in which the Authority grants such approval.

4.3 The commencement of the initial review process does not guarantee that overall approval will be granted to use an ICM to calculate the PCR.

4.4 The initial review process consists of the Licensee's submission and the Authority's review of the following items which are detailed in Schedule 2:

- 4.4.1 Cover Letter
- 4.4.2 Board Declaration
- 4.4.3 Compliance Statements
- 4.4.4 Presentation of the ICM
- 4.4.5 ICM demonstration
- 4.4.6 Documentation
- 4.4.7 Independent Validation Report
- 4.4.8 Payment of the ICM Application Fees

4.5 The Authority will formally acknowledge receipt of a submission for initial review within five business days of receipt. The Authority will only commence the initial review once all prescribed requirements under Schedule 2 have been addressed. The Licensee is therefore encouraged to approach the Authority with any questions regarding completion of the initial review submission to avoid incomplete submissions to the extent possible.

4.6 Throughout the initial review process, the Authority will conduct formal and informal interviews with persons who have responsibilities and oversight for the ICM.

4.7 The Authority will work with the Licensee throughout the initial review process to address any deficiencies highlighted by the Authority during the reviews. An action plan and timeline to resolve any such deficiencies will be presented by the Licensee to the Authority and the Authority will make the final determination as to how the deficiencies are addressed.

4.8 When the Authority has determined that the Licensee has resolved the majority of the deficiencies, the final outcome of the Authority's review of the initial review process will be communicated to the Licensee as feedback. The purpose of this feedback is to inform the Licensee as to how prepared it is to submit a formal ICM application for the use of its ICM to calculate the PCR.

5 Formal Application Process

Purpose

At the conclusion of this stage, the Authority will provide a view on whether or not the Licensee is granted approval to use its ICM to calculate the PCR. Any applicable conditions attached to the approval will also be determined at this stage.

General Guidance

5.1 The formal application will rely on the information provided during the initial review process. The review will focus on the action plan for the outstanding feedback from the initial review process. The Licensee will be expected to advise the Authority of any changes to its business or the ICM between the initial review process and the formal application that are not within the action plan.

5.2 The formal application process consists of the Licensee's submission and the Authority's review of the following items, which are detailed in Schedule 3:

- 5.2.1 Cover Letter
- 5.2.2 Board Declaration
- 5.2.3 Compliance Statements
- 5.2.4 Additional information
- 5.2.5 Reporting template(s)
- 5.2.6 Documentation
- 5.2.7 Payment of the ICM Application Fees

5.3 The Authority will formally acknowledge receipt of a formal application submission within five business days of receipt.

5.4 The Licensee should expect frequent dialogue and meetings to be held with the Authority during the formal review period. The review will be conducted both on an on-site and off-site basis.

5.5 At the end of the formal review period, the Authority will communicate the outcome of the formal application review in writing to the Licensee. The Board of Directors of the Licensee is required to acknowledge the formal communication by the Authority.

5.6 If the formal application is approved by the Authority, the approval will state the effective date of approval and include any conditions applicable to the approval.

5.7 If the formal application is not approved initially by the Authority, feedback will be provided to the Licensee on deficiencies that need to be addressed before approval can

be granted. If these deficiencies cannot be addressed by the Licensee in a reasonable time frame then the Authority will not approve the ICM application.

6 Post-Approval Monitoring

Purpose

To maintain oversight of the Licensee's capital requirements and to review compliance with any conditions or post-approval requirements.

General Guidance

6.1 The Licensee will be required to report the results of the ICM as part of the annual return to the Authority and as per the reporting format determined by the Authority during the formal application review. Any request to amend this format should be made in writing to the Authority.

6.2 The Licensee will be required to submit a validation report to the Authority as part of the annual return. This should be current and at a minimum it should coincide with the Licensee's financial year end.

6.3 The Authority will hold discussions with the Licensee prior to the end of the ICM review process to establish an appropriate policy relating to post-approval monitoring and reporting of major and minor changes to the ICM, including the threshold of materiality in relation to major and minor ICM changes.

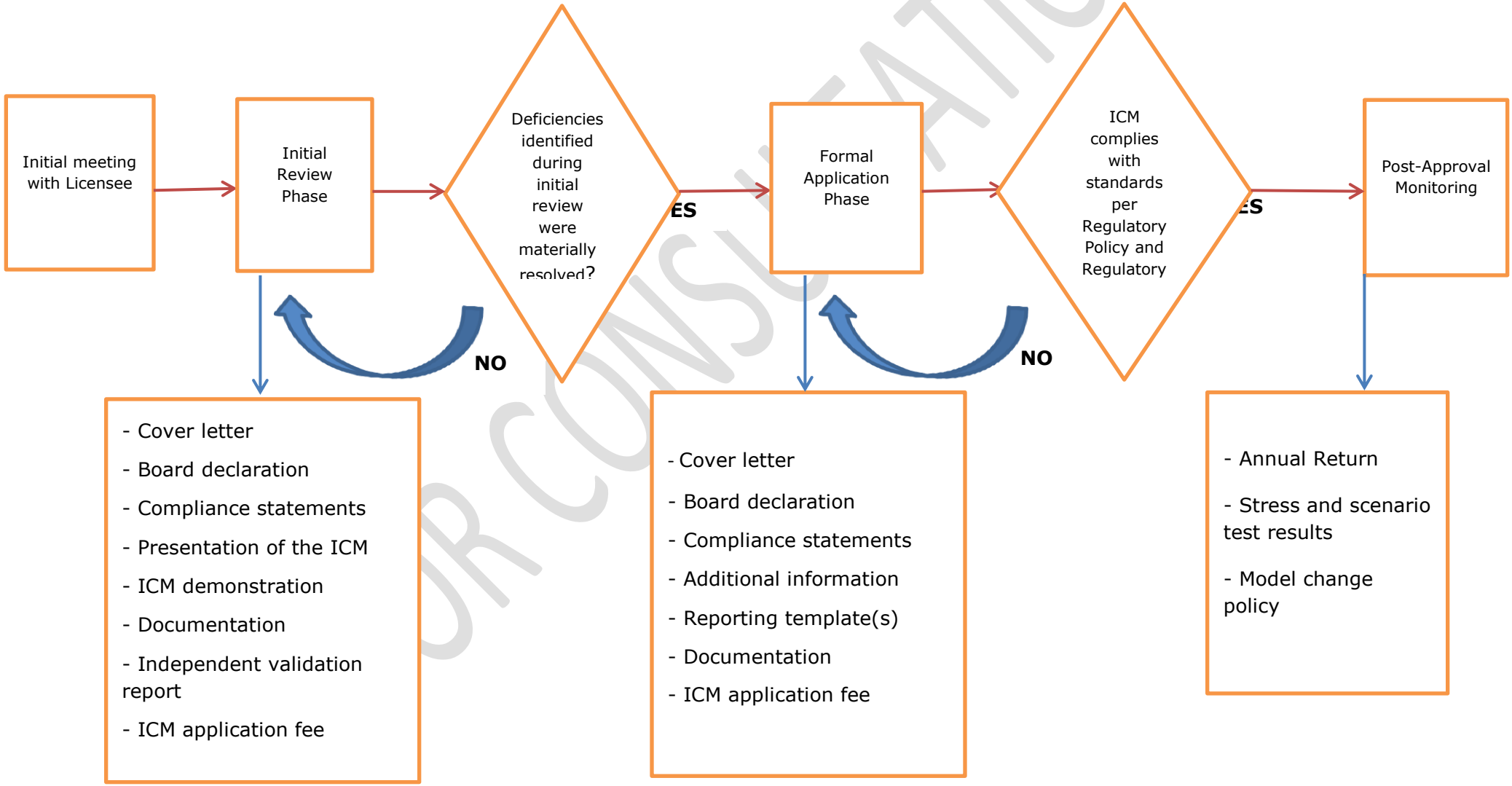
6.4 The ICM may be subject to post-approval review by the Authority for example during a general on-site inspection of the Licensee or where material events occur such as merger and acquisition activity.

6.5 The Authority may have attached conditions to a Licensee's approval to use an ICM. Any breaches to such conditions should be reported to the Authority within two weeks of the occurrence of the breach. The Authority will work with the Licensee to resolve any issues. If the issues cannot be resolved in a reasonable timeframe and the Licensee remains in breach of the conditions applicable to the approval, then the Authority may revoke the approval of the Licensee's ICM.

Schedule 1

CIMA ICM FRAMEWORK

Overview of the Application and Review Process



Schedule 2

Items to be submitted to the Authority per the Initial Review process

1. **Cover letter**

   A cover letter should accompany the initial review submission. The cover letter should include the Licensee's rationale for seeking the Authority's approval to use its ICM to calculate the PCR.

2. **Board Declaration**

   A Board Declaration which provides confirmation that the Board of Directors has formally approved the submission. At least two Directors are required to sign the declaration.

3. **Compliance Statements**

   The purpose of the compliance statements is to provide attestation and justification that all key requirements of the ICM application and review process have been addressed and that the Licensee has complied with such requirements. As this stage, Licensees are required to review the compliance statements and declare their progress towards full compliance with each compliance statement. It should be noted that this will be considered as a working tool during the initial review process and full compliance will not be required until the formal application submission. For purposes of evidencing observance with the Compliance Statements, a licensee may include reports, meeting notes, email correspondence, worksheets, etc.

   The compliance statements are as follows:

   3.1 Use Test
   - 3.1.1 The ICM, its methodologies and results, are fully embedded within the Licensee's risk strategy and operational processes.
   - 3.1.2 The ICM is used by the Licensee for its own risk and capital management functions.
   - 3.1.3 The ICM produces information that is sufficiently timely and granular in order to be used in decision making.
   - 3.1.4 The Board of Directors and Management understand the limitations and weaknesses of the ICM.
   - 3.1.5 The ICM plays a key role in the risk management process.

3.2 Statistical Quality Test

3.2.1 The ICM is sufficiently comprehensive to include all material risks relating to the financial condition and performance, and business activities of the Licensee.

3.2.2 The modelling techniques used in the ICM are appropriate to the nature, scale and complexity of the risks to which the company is exposed.

3.2.3 The underlying data used in the model is accurate and complete, and comprehensive data validation procedures are in place.

3.2.4 The ICM adequately considers dependencies within and among risk categories and diversification benefits are justified.

3.2.5 Areas of the ICM that rely on expert judgement are clearly identified, subject to sufficient challenge, and adequately documented.

3.2.6 The methodologies used in the ICM are based on rigorous actuarial and statistical techniques and are consistent with the methods used in company internal business processes.

3.3 Calibration

3.3.1 The ICM is calibrated such that the PCR is determined using the Value-at-Risk (VaR) metric subject to a confidence level of 99.5% with one year of new business over a one year time horizon.

3.4 Stress and Scenario Tests

3.4.1 All material and quantifiable risks are subject to stress and scenario testing.

3.4.2 Documentation on the stress, sensitivity and scenario testing includes rationale for why the selected stress, sensitivity and scenario tests undertaken are appropriate for the risks covered in the ICM.

3.5 Validation

3.5.1 The ICM is subject to a periodic validation cycle that includes a review of its predictive performance, an ongoing assessment of the appropriateness of material assumptions and methodologies, and a review of model output for reasonableness.

3.5.2 The validation process demonstrates that the ICM remains fit for the purposes intended under changing conditions.

3.6 Documentation

3.6.1 Documentation of the ICM covers all aspects of the ICM including the structure, design, inputs, assumptions made, parameters selected, stress and scenario tests completed, internal controls and governance.

3.6.2 Documentation of the ICM is maintained to an appropriate standard in order to support an independent review of the ICM and for the ICM

to be utilized and maintained by existing and newly assigned personnel.

3.7 Model Governance

3.7.1 The Board of Directors has formally approved the ICM for use within the business.

3.7.2 The Board of Directors and Management have a sufficient understanding of the ICM's key elements, including the implications of its outputs and its limitations for risk and capital management decisions.

3.7.3 Persons who are responsible for overseeing the risk management framework have responsibility for ensuring the ongoing appropriateness of the design and application of the ICM, ensuring that processes are in place to amend and refine the ICM following risk profile changes, and ensuring appropriate ongoing validation of the ICM.

3.7.4 There are documented procedures in place around the model change policy and processes in place to assess proposed changes to the ICM against the approved model change policy.

3.8 Internal controls

3.8.1 There are adequate and effective controls in place in relation to the operation and maintenance of the ICM, including strict protocols identifying those parties who have the authority to use and make amendments to the model.

3.8.2 There are clearly documented procedures for independent review of the ICM.

3.8.3 There is a specific control policy in effect to ensure an appropriate segregation of duties is maintained between those who are responsible for building, operating and maintaining the ICM and those who are responsible for making decisions based on the ICM's output.

3.9 Risk Assessment

3.9.1 All material and quantifiable risks have been considered in the ICM.

3.9.2 There is adequate documentation stating which risks are covered in the ICM and which are not, including those risks considered nonmaterial for the purposes of inclusion within the ICM.

4. Presentation of the ICM

The purpose of the Licensee's presentation of the ICM is to provide an introduction of its ICM to the Authority. The Authority requires that all the following items are addressed in the presentation:

4.1 **Legal and organizational structure** – showing all legal entities/ jurisdictions with responsibility for the model. Identification of any legal

entities / jurisdictions in which an ICM is currently subject to review or has been approved.

4.2 **Business overview** – an overview of the Licensee's business activity including classes of business written and jurisdictions from which the Licensee's risks arise from. The business overview should also include organization charts to show the various functions and key personnel within the organization. It should further highlight their roles, responsibilities and reporting lines.

4.3 **Model Location** – office / physical location where the model is maintained. If multiple locations are relevant then describe the components of the model maintained in each location.

4.4 **Risk management framework** – describe the Licensee's business, present the Licensee's risk taxonomy, risk strategy and risk management process (e.g. risk appetite, risk tolerance, risk mitigation strategies).

4.5 **Risk mitigation** – describe risk mitigation approaches utilized by the organization (ex: reinsurance, hedging, collateralization) and how these are incorporated into the model.

4.6 **Introduction to the model** – describe the nature and structure of the model, including but not limited to: technical characteristics (e.g. methodology, metric, risk aggregation method, dependency structure), model inputs (e.g. primary data sources), use of external models, capabilities, describe (briefly) the methodologies to assess risk (may include key assumptions and risk drivers), IT platform/system.

4.7 **Flow chart** – showing the process from the initial data input to the capital requirement output.

4.8 **Frequency of calculations** – describe how often the ICM is run and the areas for which output is used at various periods in the cycle.

4.9 **Scope of model** – in presenting the scope of the model to the Authority, a comprehensive listing should be presented that clearly identify the risks, legal entities, jurisdictions, lines of business and/or major business units and explicitly states for each of these items whether they are considered to be in or out of the scope of the ICM.

4.10 **Purpose(s) and use of model** – state the purpose(s) and objectives of using the model (e.g. target credit rating, regulatory capital, etc.); describe how the model results are being used for strategic, capital management and risk management decision-making purposes.

4.11 **Technical operation of the model** – describe briefly the Licensee's model calibration and validation process, including statistical quality tests and stress/scenario tests conducted by Licensee.

4.12 **Model governance** – identify the developers, owners, users and reviewers and their roles within the organization (may include high-level description of controls and their effectiveness); describe frequency of review; include a description of their skills, qualifications and experience; in case of outsourcing or consulting arrangements, provide terms of reference.

4.13 **Internal controls** – describe policies, procedures, systems and controls surrounding the model, including model changes and outsourced processes.

4.14 **Issues, challenges and weaknesses of the model** – e.g. reinsurance modelling at contract level vs. treaty level, data issues, external model limitations, non-modelled risks etc. and how these will be evaluated and addressed prospectively.

4.15 **Model developments** – describe plans for any future model developments including milestones and key deliverables.

4.16 **Insurance Manager** – where the Licensee is represented by an Insurance Manager in accordance with Section 6 of the Law, the responsibility and involvement of the Insurance Manager in respect of the ICM will be determined by the Licensee. The Licensee should clearly define the Insurance Manager's role and responsibilities with regard to the ICM as part of its presentation to the Authority.

5. ICM demonstration

The Licensee should provide a high-level demonstration of its ICM to the Authority by way of presentation. This should highlight the operation of the ICM to display how it works in practice. Examples of previous outputs of the ICM should also be demonstrated for example the results of previous stress/scenario tests.

6. Documentation

The Licensee should provide copies of all ICM related documentation (policies, procedures etc.) to the Authority. A documentation inventory which lists all documentation submitted to the Authority as part of the initial review process should also be included in the submission. All documentation provided to the Authority should include reference name and/or numbers and version controls at a minimum.

Where the Licensee does not have all ICM documents either constructed or up to date and readily available at the time of the initial review submission; a

documentation gap analysis should be performed and submitted with the application. This should identify all documents relevant to the ICM and highlight those that are in the process of being created or updated, together with a timeframe for completion. The Authority expects however that a majority of these documents are already available for review.

7. Independent Validation report

The Licensee is required to subject its ICM to an independent validation review which must be conducted by either an independent internal or independent external reviewer. An independent review should therefore be performed by parties not directly involved with the development and operation of the ICM. Independent reviewers should be skilled and sufficiently knowledgeable to challenge the ICM inputs, process and methodology, model outputs, and its use in decision making.

Licensees undergoing a comprehensive validation process for the first time are encouraged to discuss their independent validation process with the Authority.

The Authority has the right to make a judgment on the whether the person(s) conducting the validation process are independent and have the necessary qualifications / expertise.

8. Payment of the ICM Application Fees

The Authority will charge an initial administrative fee to enter into the initial review process. A separate fee will also be charged by the third party expert for the review as part of the initial review process and will depend on the nature, scale and complexity of the Licensee's ICM. These fees are further detailed in the introductory section of this Regulatory Procedure.

Schedule 3

Items to be submitted to the Authority per the Formal Application Process

1. **Cover Letter**

   A cover letter should accompany the Licensee's formal application to seek the Authority's approval to calculate the PCR using its ICM. The letter should include the status of the action plan that was approved by the Authority from the initial review process.

2. **Board Declaration**

   A Board Declaration which provides confirmation that the Board of Directors has formally approved the submission. At least two Directors are required to sign the declaration.

3. **Compliance Statements**

   The purpose of the compliance statements is to provide attestation and justification that all key requirements of the ICM application and review process have been addressed and that the Licensee has complied with such requirements. Licensees are required to monitor their observance with the compliance statements and should be fully compliant with all compliance statements before submitting a formal application. The Licensee should clearly highlight any differences and updates made to its observance with the compliance statements from that previously submitted to the Authority during the initial review process.

4. **Additional information**

   The Licensee will be required to provide additional information which will include but not be limited to the remaining information necessary to address the feedback provided by the Authority during the initial review process and information covering any changes to the business or ICM since completion of the initial review process until submission of the formal ICM application.

5. **Reporting template (s)**

   The Licensee must present to the Authority the proposed reporting structure of how it proposes to report its PCR calculation using its ICM. Reporting templates will be determined by the Authority during the formal application review.

6. **Documentation**

   The Licensee should provide copies of all ICM related documentation (policies, procedures etc.) that were revised or changed prior to formal application to the Authority. A documentation inventory which lists all documentation submitted to the Authority as part of the formal application should also be included in the

submission. All documentation provided to the Authority should include reference name and/or numbers and version controls at a minimum.

7. Payment of the ICM Application Fees

The Authority will charge an administrative fee to enter into the formal application process. A separate fee will also be charged for the review as part of the formal application process and will depend on the nature, scale and complexity of the Licensee's ICM. These fees are further detailed in the introductory section of this Regulatory Procedure.