COMPETENCY ASSESSMENT GUIDE

FOR APPLICANTS, VALIDATORS AND ASSESSORS

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INTRODUCTION

This guide is intended to assist users of Engineers and Geoscientists BC's Competency-Based Assessment system for the evaluation of engineering work experience. It aims to assist applicants for professional engineering (P.Eng.) licences in completing their Competency-Based Assessment application, as well as to guide Validators and Assessors in verifying and evaluating these applications. The contents are intended to enhance your understanding of engineering competencies and how they should be met and presented in a Competency Self-Assessment.

Engineers and Geoscientists BC's Competence Assessment System is intended to preserve the valued reputation, responsibility, and professionalism of the P.Eng. designation. The Competency Framework, Indicators, and Competency Self-Assessment form were designed in order to ensure that Engineers and Geoscientists BC's requirements uphold and protect the public interest while maintaining an equitable, transparent, consistent and efficient registration process. The Competency Framework comprises the required proficiencies to enter the engineering profession and provides clear guidance on the path to registration for applicants, Validators, Assessors, and employers alike.

To achieve registration as a Professional Engineer (P.Eng.), applicants must also meet a set of requirements including acceptable academic qualifications and Canadian citizenship or Permanent Resident status; the full list of requirements can be found at https://www.apeg.bc.ca/Become-a-Member/Membership-Types/Professional-Membership-and-Licence. Competency-Based Assessment is conducted in order to determine whether applicants have progressed to a professional level of competency in their field during their engineering work experience.

The P.Eng. designation is a professional licence, allowing you to practice engineering in the province or territory where it was granted. Only engineers licensed with Engineers and Geoscientists BC, or those practising under the direct supervision of a P.Eng. licensed with Engineers and Geoscientists BC, have a legal right to practice engineering in British Columbia.

COMPETENCY-BASED ASSESSMENT OVERVIEW

ELEMENTS AND DEFINITIONS

COMPETENCY

Competency can be defined as the ability to perform the tasks and roles of an occupational category to standards expected and recognized by employers and the community at large. Engineers and Geoscientists BC's Competency Framework outlines the common competencies related to work experience that are essential for Professional Engineers in all disciplines to ensure effective practice and public safety. Competency is a measure of ability, and thus examples of drawn from actual work experience are required to demonstrate it.

In assessing the competency of an applicant for a Professional Engineering licensure, it needs to be clear that they have not only performed well in the circumstances they have encountered to date, but that they have demonstrated the capacity to handle situations likely to be encountered in the future. Thus, a competency-based system requires applicants to demonstrate the ability to apply their engineering knowledge reliably and safely across different circumstances; to recognize their professional limitations; and to be prepared when necessary to either extend and develop their expertise or to call for assistance from other sources. Providing detailed examples as part of a Competency Self-Assessment allows Engineers and Geoscientists BC assessors to have a clear picture of an applicant's knowledge and experience in all areas essential to safe and effective engineering practice.

COMPETENCY CATEGORY:

Engineers and Geoscientists BC's Competency framework includes seven Competency Categories, which are categorical groupings of competencies or skills. The seven categories represent the essential areas in which Professional Engineers of all disciplines must have expertise in order to ensure effective practice and public safety. Each Competency Category contains a list of the key competencies required in that area. Applicants must meet the required average level of competence in each Competency Category in order to meet Engineers and Geoscientists BC's competency requirements.

KEY COMPETENCIES

Key competencies are defined as an identified skill-set or knowledge-base which the candidate must have attained to achieve professional registration. They are behavioural-type descriptions of what an applicant should demonstrate they have done in practice to meet the required level of expertise in each Competency Category. A successful candidate must meet each key

competency to at minimum level one on the Competency Rating Scale (a training level) while achieving the required average level for each category as a whole.

LEVEL OF COMPETENCE

Achievement of each category is measured through a **Competency Rating Scale** that outlines six different levels of competence (0-5). Each category has a required overall level of competence which is set at either level two or level three, and the average of an applicant's Key Competency scores within each category must meet or exceed the required level. Applicants must also achieve a minimum of level one (a training level) in each Key Competency. Please see page 7 for a more detailed description of the Competency Rating Scale and a table outlining each level.

INDICATORS

Indicators are defined as specific examples of activities, actions, skills or behaviours that an applicant could use to demonstrate the existence and achievement of a competency. Engineers and Geoscientists BC provides a list of indicators for each Key Competency in order to help applicants to understand what types of examples are required to meet each requirement, or what specific knowledge- base, experience or skill they must develop before achieving registration. The indicators provided are typically common to all engineering disciplines, but discipline-specific indicators are also available for the Technical Competence category for several engineering disciplines, including Structural; Civil: Municipal/Infrastructure; Electrical: Power and Industrial; Materials, Metallurgical and Mineral Processing. Both generic and discipline-specific indicators for all categories are available online at https://www.apeg.bc.ca/Become-a-Member/Competency- Experience-Reporting-System.

COMPETENCY EXPERIENCE REPORTING SYSTEM

The Competency-based assessment system operates through an efficient, easy-to-use online system. Through the Competency Experience Reporting System, Engineers and Geoscientists BC student members, EITs and applicants can save their work experience information, monitor their progress towards meeting the competency requirements, and submit this information for online validation and assessment.

Further information regarding the Competency Experience Reporting System is available at https://www.apeg.bc.ca/Become-a-Member/Competency-Experience-Reporting-System.

COMPETENCY RATING SCALE

The Competency Rating Scale is used to determine whether a candidate has achieved the required level of competence to gain registration as a professional engineer. A successful application for registration will require that a candidate attains a minimum the defined average

level of competence in all Competency Categories, with no score lower than level one for any Key Competencies.

Please see Table 1 for a brief outline of the Competency Rating Scale.

Table 1: Competency Rating Scale Summary

Level of competence	Short Description: Category 1	Short Description: Categories 2-6	Short Description: Category 7	Direct Supervision Required	Responsibility & Risk	Complexity of applicant's own work	Supervision & Development of others* *Category 1 Only
0	Little or no exposure to the competency	Little or no exposure to the competency	No CPD completed and/or planned; no gap analysis	N/A	N/A	N/A	N/A
1	Training Level: A general appreciation and awareness of the competency is required	Training Level: A general appreciation and awareness of the competency is required	Minimal amount of CPD completed and/or planned; CPD completed may not address professional competence; An incomplete gap analysis	Significant	minimal	minimal	none
2	Requires knowledge and understanding of objectives; Uses standard engineering methods and techniques in solving	At a level of limited experience; Carries out activities of limited scope and complexity; Requires knowledge and understanding of	A marginal amount of CPD completed and planned; A marginal/insufficient gap analysis	considerable	some	Some	limited

	problems	objectives					
3	Carries out assignments of moderate scope and complexity; is typically seen to be prepared to assume professional engineering responsibilities.	Approaching a professional level; Carries out activities of moderate complexity.	Adequate amount of CPD completed and/or planned; An adequate gap analysis	Some	considerable	moderate	some
4	Carries out responsible and varied assignments requiring general familiarity with a broad field of engineering and knowledge	Working at a professional level; carries out responsible and varied activities	A good amount of CPD completed and/or planned; a strong gap analysis	Minimal	significant	considerable	some
5	Uses mature engineering knowledge; independent accomplishment, and coordination of difficult and	At a mature professional level; Independent coordination of difficult and responsible activities	Provides and demonstrates leadership in continuing professional development activities; a superior gap analysis	autonomous	total	significant	some

	responsible assignments						

Below is an overview of each Competence Level, divided by Competency Category.

LEVEL 0

An engineer at competency level zero:

Categories 1-6:
- Has little or no exposure to the competency.

Category 7:
- Has completed no Continuing Professional Development
- Has not completed a gap analysis to determine areas of weakness
- Has demonstrated no plan for future professional development.

LEVEL 1

An engineer at competency level one:

Category 1:
- Receives training in the various phases of office, plant, field, or laboratory engineering as on-the-job assignments.
- Tasks assigned include: preparation of simple plans, designs, plots, calculations, costs, and bills of material in accordance with established codes, standards, drawings, or other specifications.
- May carry out routine technical surveys or inspections and prepare reports.
- Has no supervisory role.

Categories 2-6:
- Receives training in on-the-job assignments.
- Is at an early/beginner level
- Carries out activities of low complexity
- Has no supervisory role.
- Is at a basic level in this area; competency needs substantial development

Category 7:
- Has completed a minimal amount of continuing professional development activities
- Gap analysis is incomplete; incomplete assessment of areas of weakness
- Has developed an inadequate or no professional development plan; many gaps in knowledge are not sufficiently addressed

LEVEL 2

An engineer at competency level two:

Category 1:
- Receives assignments of limited scope and complexity, usually minor phases of broader assignments.
- Uses standard engineering methods and techniques in solving problems.
- Assists more senior engineers in carrying out technical tasks requiring accuracy in calculations, completeness of data, and adherence to prescribed testing, analysis, design or combination of methods.
- May assign and check work of one to five technicians or others
- Normally regarded as a continuing portion of an engineer's training and development.

Categories 2-6:
- Carries out activities of limited scope and complexity, usually minor phases of broader assignments.
- Usually relies on predetermined standards and techniques in solving problems.
- Assists more senior engineers in carrying out tasks
- Normally regarded as a continuing portion of an engineer's training and development.
- Marginal skills in this competency; some training would be required to bring skills up to a professional standard

Category 7:
- Has completed a some professional development activities on a sporadic basis
- Gap analysis is marginal; insufficient assessment of areas of weakness
- Has developed a marginal professional development plan; not all key gaps in knowledge are addressed

LEVEL 3

An engineer at competency level three:

Category 1:
- Receives assignments of moderate scope and complexity, including standalone phases of major projects
- Usually solves problems by using combinations of standard procedures, modifications of standard procedures, or methods developed in previous assignments.
- May assign and check work of one to five technicians and technologists
- Is typically seen to be ready to assume professional engineering responsibilities

Categories 2-6:
- Carries out activities of moderate scope and complexity
- Provides significant assistance to more senior engineers in carrying out tasks
- Usually solves problems by using combinations of standard procedures, modifications of standard procedures, or methods developed in previous assignments.
- Possesses adequate skills in this competency
- Is typically seen to be ready to assume professional engineering responsibilities

Category 7:
- Has completed a sufficient amount of continuing professional development activities
- Gap analysis is adequate; areas of weakness are adequately assessed
- Has developed an adequate professional development plan; gaps in knowledge are addressed

LEVEL 4

An engineer at competency level four:

Category 1:
- Carries out responsible and varied assignments requiring general familiarity with a broad field of engineering and knowledge of reciprocal effects of the work upon other fields.
- Solves problems by using a combination of standard procedures and devising new approaches
- Deals with assigned problems by devising new approaches, applying existing criteria in new ways, and drawing conclusions from comparative situations
- Participates in planning to achieve prescribed objectives.
- May give technical guidance to one or two junior engineers or technologists, and technicians assigned to work on a common project.
- Is typically seen to be working at a fully qualified professional engineering level

Categories 2-6:
- Carries out responsible and varied activities requiring general familiarity with the area of competency
- Deals with assigned problems by devising new approaches, applying existing criteria in new ways, and drawing conclusions from comparative situations
- Participates in planning to achieve prescribed objectives.
- May provide guidance to one or two junior engineers or technologists, and technicians assigned to work on a common project.
- Possesses strong skills in this competency; above-average ability is apparent
- Is typically seen to be working at a fully qualified professional engineering level

Category 7:
- Has completed a good amount of continuing professional development activities
- Gap analysis is strong; areas of weakness are correctly assessed
- Has developed an strong professional development plan; gaps in knowledge are well addressed

LEVEL 5

An engineer at competency level five:

Category 1:
- Applies mature engineering knowledge in planning and conducting projects having scope for independent accomplishment, and coordination of difficult and responsible assignments.
- Deals with assigned problems in a mature, creative and experienced manner by modifying established guides, devising new approaches, applying existing criteria in new ways, and drawing conclusions from comparative situations
- Participates in short and long-range planning.
- Makes independent decisions for devising practical and economical solutions to problems.
- Assigns and outlines work; advises on and outlines more difficult problems and methods of approach.

Categories 2-6:
- Carries out activities of advanced scope and complexity
- Independently coordinates difficult and responsible assignments and activities.
- Deals with problems or issues in a mature, creative and experienced manner by modifying established guides, devising new approaches, applying existing criteria in new ways, and/or drawing conclusions from comparative situations
- Participates in short and long-range planning.
- Makes independent decisions for devising practical and economical solutions to problems or issues
- Possesses superior skills in this competency; provides mentorship or supervision for others

Category 7:
- Provides and demonstrates leadership in continuing professional development activities
- Gap analysis is excellent; areas of weakness are very well assessed
- Has developed a superior professional development plan to address all gaps in knowledge and maintain currency in field of practice
- Develops professional development plans with others and may instruct courses as appropriate

CATEGORIES

The seven Competency Categories that applicants must demonstrate in order to achieve professional registration are:

1. **TECHNICAL COMPETENCE**
2. **COMMUNICATION**
3. **PROJECT & FINANCIAL MANAGEMENT**
4. **TEAM EFFECTIVENESS**
5. **PROFESSIONAL ACCOUNTABILITY**

6. **SOCIAL, ECONOMIC, ENVIRONMENTAL & SUSTAINABILITY**
7. **PERSONAL CONTINUING PROFESSIONAL DEVELOPMENT (CPD)**

ROLES AND RESPONSIBILITIES

The following is an overview of the roles and responsibilities of each participant in the Competency Assessment system.

- **APPLICANT**
  - Provides work experience details through Competency Experience Reporting System, including work experience chronology and specific examples to address each Key Competency
  - Provides self-assessed competence level for each Key Competency according to the Competency Rating Scale
  - Provides contact information for a minimum of four individuals to act as Validators and verify and provide feedback on their competency assessment
  - Provides further information as requested

- **VALIDATORS** (Supervisor/Employer/Colleague/Client – Ideally P.Eng. Supervisor)
  - Confirms the work experience information of which they have personal knowledge
  - Provides competence level scores for key competencies to which they are assigned by applicants (if applicable)
  - Provides overall feedback on the applicant's readiness for registration

- **ASSESSORS** (Qualified Engineers and Geoscientists BC volunteers in the applicant's area of practice)
  - Review applicant's submission as well as validators' feedback
  - Provide scores for each Key Competency
  - Make recommendation on applicant's readiness for registration

- **INTERVIEWERS**
  - Assess further if necessary

APPLICATION DOCUMENTATION AND INSTRUCTIONS

APPLICATION COMPONENTS

There are two main components that applicants must complete as part of their Competency-Based Assessment, which are both submitted through the Competency Experience Reporting System:

1. A brief, chronological **Employment History**. This provides a short form overview of an applicant's experience.

2. A **Competency Self-Assessment** using examples drawn from work experience to demonstrate achievement of each Key Competency.

For a full list of required documentation for P.Eng. applicants, including proof of citizenship and academic qualifications, please visit https://www.egbc.ca/Become-a-Member/How-to-Apply/Professional-Membership-and-Licence/Engineer-First-Time-Applying-in-Canada. P**lease note that competency submissions will not be assessed until all required application documents have been received, including a completed online application.**

BEFORE YOU APPLY

WE RECOMMEND THAT APPLICANTS TAKE THE FOLLOWING INITIAL STEPS:

- Ensure that your CV is kept up to date to include key job roles, projects and achievements over the period of work experience you are claiming (a minimum of four years). This will save you time in completing the Employment History and selecting projects to use as examples in the Competency Self-Assessment.

- Ensure you maintain a record of all of your Continuing Professional Development goals and activities.

- Familiarize yourself with the Engineers and Geoscientists BC Competence Framework and its indicators, including any discipline-specific indicators available for your area of practice. They are included in the Competency Self-Assessment section of the online tool for reference and are also available at https://www.egbc.ca/Become-a-Member/Competency-Experience-Reporting-System

- For key learning activities please take the time to reflect briefly on the key learning that you gained, how it may have impacted your practice, and contributed to demonstrating competence against any of the Competency Categories.

COMPILING AN EMPLOYMENT HISTORY

All applicants must complete an **Employment History** summary through the Competency Experience Reporting System. The Employment History section creates a chronological, short form overview of an applicant's experience, including brief additional detail regarding their responsibilities in each position. This summary can be edited at any time before an applicant submits their final competency self-assessment.

Please remember to:

- Briefly explain any gaps or overlaps in time periods

- Demonstrate evidence of progression of experience and responsibility throughout your career

FORMAT AND INFOMATION

The format of entries in the Employment History section is as follows:

Experience Type *	Work Experience ▾
Employer *	
City *	
Province/State *	Select State/Province ▾
Country *	Select Country ▾
Start Date *	Select month ▾ Select year ▾
End Date	Select month ▾ Select year ▾
Job Title *	
Primary Area of Practice *	Select Primary Area of Practice ▾
Supervisor *	
Overview of Major Responsibilities and Projects *	⦂≡ ≔

For each item, you will select "add employment history" and enter the relevant information. You will be asked to classify each item as "work experience", "other/non-engineering" or "thesis."

In the "**Overview of Major Responsibilities and Projects**" section, please provide a brief outline of the major projects you worked on in each position, including a description of your role and the project scope. Point form is permitted.

COMPETENCY SELF-ASSESSMENT

SELECTING VALIDATORS

Through the Competency Experience Reporting System, applicants are asked to provide the names and contact e-mail addresses of **a minimum of four validators**. Validators confirm your work experience examples and provide overall feedback on your readiness for professional licensure. Ideally, all validators will be professional engineers (or the equivalent); however, if that is not possible, ensure that a minimum of two are professional engineers. One validator must be a direct supervisor and share the same discipline of practice that you are applying for. Consider whom you report to or who signs off on your work when listing validators. Clients and consultants may count as validators. Please note that validators must have first-hand knowledge of your work.

As you complete your Competency Self Assessment, you will assign each example to a validator with fist-hand knowledge of the work described. This validator will be asked to provide a competence level score for the example, and will have the option of providing a comment. All validators are also asked to provide overall feedback on your experience and readiness for registration. **There is no requirement to assign all validators to key competencies; validators not assigned to any key competencies will be asked to provide overall feedback.** For example, co-op supervisors who do not need to validate any examples may be included as validators to provide overall feedback, which will allow them to comment on and confirm your experience during the co-op period.

PROVIDING COMPETENCY EXAMPLES THROUGH THE COMPETENCY EXPERIENCE REPORTING SYSTEM

The Competency Self Assessment section is divided into the seven categories of the Engineers and Geoscientists BC Competency Framework. Under each category heading – such as Technical Competence – the required **Key Competencies** are listed. An example must be provided for all key competencies prior to final submission. Each key competency must be achieved at a minimum of level one on the Competency Rating Scale, while **achieving the required average level for each category as a whole**. Required scores range between 2 and 3 depending on the category.

When filling in the Competency Self Assessment, please use both the competencies and their indicators as guidelines to identify suitable and relevant projects and activities from your engineering experience that will best **demonstrate your achievement of each key competency**. Please be specific about your individual actions and contributions. For each example, you are asked to identify a self-assessed competence level that you believe you have demonstrated. The descriptions of each level of competence on pages 5-12 of this guide will help you to determine which level on the Competency Rating Scale you should cite for each key competency.

An image of the window for entering key competency examples is included below.

SELECTING, DRAFTING AND SAVING EXAMPLES

Under each Key Competency you are asked to describe the example of your recent engineering activities that best demonstrates your achievement of the competency. The examples you select should reflect activities or projects in which you had responsibility and must be in the discipline of engineering indicated on your application. Detail is encouraged; please be specific in describing how you have met the key competency. When selecting examples it is recommended that you pay close attention to the indicators; they are intended to assist you in identifying typical evidence to submit.

 For each key competency you have the option of viewing different types of indicators from the "indicator type" drop-down list; the generic indicators are recommended for most situations, but discipline-specific indicators are also available in several areas of practice for Category 1. Please You do not need to demonstrate all indicators listed, although they provide a helpful guide as to what assessors are looking for. Indicators are **examples to guide you in determining the type of work that would satisfy each Key Competency**.

Each example includes the following information:

- **Employer and Position**: Your employer and position at the time of the work described in the example.

- **Validator:** The Professional Engineer or equivalent that has first hand knowledge of your work who you are asking to validate this example.   This is ideally a supervisor, but may also be a colleague or client.

- **Start Date and End Date (Month/Year)**: The time period covered by your example.

- **Situation**: A brief overview of a specific situation or problem. The same situation can be used to cover multiple Key Competencies.

- **Action**: The actions that you took in response to the situation, including engineering judgments made or solutions found. This section is typically the longest portion of the example and should include details about the specific actions that you took that demonstrate completion of the key competency. **Please be specific about your individual work and contributions** – **use of the word "I" is encouraged**. Point form is permitted.

- **Outcome**: The impact that your actions, solutions or judgments generated.

- **Self-Assessed Competence Level**: The level on the Competency Rating Scale that you believe that you demonstrated in the example.

- **Canadian environment example**: Whether this experience was gained in a Canadian environment.

Examples are valid if:

- They are related to unique problems without obvious pre-determined solutions; and

- You had full or partial responsibility for delivering the outcome; and

- They typically took at least one month to accomplish

> *Use "I" statements as opposed to "we"*

Depending on the key competency, is recommended to include the significance of the project (e.g. size), your role in the project and the key issues and outcomes. Make the technical or managerial complexity of the project clear. Be specific about your role and level of responsibility.

Applicants are encouraged to exercise judgement over the level of detail provided with different examples. Less detail may be needed for substantial, obviously complex projects or activities than for smaller scale projects where the complexities my not be immediately apparent to the assessors. The objective is to supply sufficient information to enable straightforward verification of your evidence by Engineers and Geoscientists BC assessors, and not to leave assessors with substantive questions or information gaps that require further investigation before they can verify that the required competence level has been met.

Assessors cannot rely on 'implied evidence' – they can only use evidence which clearly shows you are able to do the things required by the Competency Framework. For this reason it is important to identify specific examples that best demonstrate your competence. For example, in your Competency Self-Assessment it is not acceptable to state: "I am a Project Manager and must be able to communicate clearly to perform my job". You must give specific examples of your communication requirements (e.g. chairing client meetings, managing contractors, reporting to senior management).

When completing your Competency Self-Assessment form, **always write in the first-person. Use "I" statements as opposed to "we"** - even if you were working as part of a group. **It is important to identify your personal contribution and those things for which you took responsibility.**

REMEMBER:

- Please be specific about your contributions when describing your experience. Avoid general terms such as "participated in" or "involved with", and **state your exact duties.**
- Always write in the person using "I" statements – even if you were working as part of a group.
- Wherever possible use point form when describing the actions you took to resolve the Situation described in your example/
- As an applicant it is your responsibility to pick your best evidence for your application. Don't wait to be asked!
- Assessors cannot rely on 'implied evidence' - you must use specific examples that best demonstrate your competence. For example, for Competency Category 2, in which

applicants must show that they communicate clearly with others as part of their engineering activities:

☒ "I am a Project Manager and must be able to communicate clearly to perform my job."
✓ "As a Project Manager I chair client meetings, manage contractors and report to senior management. For example…"

•For examples of what could be good evidence to include in the Competency Self-Assessment you can refer to the [indicators](#).

VALIDATION AND ASSESSMENT OF AN APPLICATION

VALIDATING AN APPLICATION

VALIDATION REQUIREMENTS

An applicant's competency submission, including all key competencies in the **Competency Self-Assessment,** must be verified by their Validators. Applicants are asked to nominate a **minimum of four** individuals who can confirm and provide feedback on their engineering experience to act as Validators. Validators are typically P.Eng. supervisors but may also be colleagues or clients with first-hand knowledge of an applicant's work experience. Validators nominated by the applicant for a specific competency example must have direct personal and professional knowledge of that example.

Combined, the Validators should cover as much of an applicant's experience as possible but a minimum of four years must be covered. An applicant's Validators are required to confirm the examples that they cite to demonstrate competency and to provide overall feedback on the applicant's readiness for licensure. Validators should have direct personal and professional knowledge of the competency example. No additional reference forms are required to be submitted for users of the Competency Experience Reporting System; all supervisor feedback must be provided through the validation process.

For further information on validation requirements, please see the "Become a Member" section of the Engineers and Geoscientists BC website.

VALIDATION PROCESS

The online validation process proceeds as follows:

1. Validators cited by the applicant will receive a link by email which will include login information to complete their validation through the online tool. This e-mail will only be sent when an applicant submits an example through Interim Validation or a completed Competency Self-Assessment. **Note:** If the Validation e-mail has not been received, please ensure that the spam filter is checked.

2. Following the link, the Validator will enter the Competency Experience Reporting System.

3. The Validator will first view the applicant's education and employment history. No input is required from the Validator in these sections, but they provide the Validator with the opportunity to review chronological summaries of the applicant's education and experience.

4. Validators will then have an opportunity to decline to complete the process if they are not willing or able to verify the applicant's experience. A reason must be provided if the validation is declined, and a comment box is provided. The reason, along with all

validator feedback, is confidential and is not visible to the applicant.

5. The Validator will then be asked to review the applicant's Competency Self-Assessment and provide feedback on any examples that the applicant has assigned to them. Applicants select the appropriate Validator for each example they provide, and the selected Validator will provide a rating on the Competency Rating Scale and will have the option to provide a comment. Descriptions of each level are available in pages 6-12 of this guide. Validator comments on the examples are encouraged and help to provide valuable additional feedback and information to Engineers and Geoscientists BC Assessors.

6. Finally, Validators will be asked to provide overall feedback on the applicant's readiness for licensure. The overall feedback section includes the questions previously included on Engineers and Geoscientists BC's reference form.

ASSESSING AN APPLICATION - OVERVIEW

Each competency submission is reviewed by two Assessors in the applicant's field. The online assessment process proceeds as follows:

1. Assessors will be notified by email once the application is ready for review, and will login to the Competency Experience Reporting System.

2. The Assessor will examine the candidate's education and employment history. No input is required from the Assessor in these sections, but they provide the Assessor with the opportunity to review chronological summaries of the applicant's education and experience.   The employment history section also provides Assessors with an opportunity to look for a progression of responsibility in the applicant's experience.

3. The Assessor will then review the candidate's Competency Self-Assessment and determine for each Key Competency whether the example(s) provided represent sufficient evidence that it has been met. While reviewing each example, Assessors will note the competence level claimed by the applicant and Validator for each Key Competency. Based on the breadth, depth, and quality of the example provided they will determine the competence level demonstrated for each Key Competency. Descriptions of each level are available in pages 6-12 of this guide. Assessors also have the option of providing a comment for each Key Competency; these comments are confidential to the assessment process and are not viewable to the applicant or Validators.

4. The system will calculate the average Competence Level achieved for each category according to each Assessor.

5. In the "Supporting Documents" section, Assessors may review any supporting documents uploaded by the applicant. The inclusion of supporting documents is optional.

6. In the "Validator Overall Feedback" section, Assessors will review the feedback of the applicant's Validators.

7. The Assessor will then be asked to confirm their final recommendation on whether the applicant has met the competencies at the required level for registration.

RATING AN EXAMPLE

Assessors will grade an applicant's Competency Self-Assessment by rating the examples provided for each Key Competency according to the Competency Rating Scale. An Assessor's role is to examine the examples provided for each Key Competency and determine the Competence Level that has been demonstrated; applicants must have met the required average Competence Level for each category to be granted registration.

EXAMPLE REVIEW PROCESS – CATEGORY ONE

An evaluation of Competency Category 1, Technical Competence, will serve as an example of the Review process. Ten Key Competencies (1-1.10) are included in this category.

The Assessor will read and assess the examples for each Key Competency, keeping in mind the following:

- Examples must be related to unique problems without obvious pre-determined solutions

- The candidate must have had full or partial responsibility for delivering the outcome

- Examples must typically have taken at least one month to accomplish

- Examples must be **clear and specific** examples that demonstrate the candidate's competence in a particular area. Assessors cannot rely on implied evidence.

Based on the evidence provided in the examples, the Assessor will assign the applicant a score on the Competency Rating Scale for each Key Competency in the category – in this case, the ten Key Competencies under Technical Competence. The applicant self-assessed score as well as the validator's feedback are available for reference, as well as the detailed descriptions of each competency level included in pages 6-12 of this guide.

The online tool will calculate the average that the applicant has achieved for each competency category. For the Technical Competence category, if the average score is equal to or higher than the required minimum overall competence level of 3 for this category, the applicant has satisfied the requirements for Technical Competence. If this number is below 3, the applicant has failed to satisfy the requirements for Technical Competence.

A successful application for registration will require that a candidate attains at minimum the required average level of competence in all Competency Categories, with no score lower than level one for any Key Competency.

➢ Assessors may look to the Competency Rating Scale and Indicators for guidance in determining whether candidates have met the required standard for each Key Competency. **Meeting one indicator may be sufficient to demonstrate a Key Competency; they are intended as examples of good evidence for an applicant to submit.**

INTERVIEWING TO ASSESS COMPETENCY

In cases where further clarification or detail is required, applicants may be asked to attend an interview. These interviews provide applicants with an opportunity to present in person a summary of their experience, to further expand on their project work, and/or to better explain how they apply engineering theory in their everyday working life.   The interview helps to determine whether a candidate has satisfied all of the experience requirements and has demonstrated a progression of experience and responsibility to a professional level. Competency Categories or Key Competencies in which an applicant was rated as below the required competence level may be areas of focus for the interview.

THE ASSESSMENT PROCESS

WHAT HAPPENS AFTER I APPLY?

Once all required documents are received in support of your P.Eng. application, an academic review will be done to determine if you meet Engineers and Geoscientists BC's minimum academic requirements. If these requirements are not met, academic examinations may be assigned. Next, your experience will be reviewed through the Competency Assessment process to determine whether it meets minimum requirements. An interview may be required as part of the experience review process.

If you earned your engineering degree outside of Canada and have more than seven years of engineering experience, you may be granted an interview in order to determine if all or some of the academic exams normally assigned to someone with your degree background can be waived on the basis of your experience. There is no guarantee that an interview will result in the waiving of academic examinations.

All applicants for professional membership are required to pass a Professional Practice Examination, complete the Professional Engineering and Geoscience Practice in BC Online Seminar and fulfill the English Language Competency and Good Character requirements. More information about these requirements is available in the "Become A Member" section of the Engineers and Geoscientists BC website (www.egbc.ca/Become-a-Member).

TRACKING PROGRESS OF YOUR ASSESSMENT

Once you have submitted your Competency Self-Assessment through the Competency Experience Reporting System, you are able to log back into the system at any time to track the progress of your validators in verifying your submission. This information will be available in the Competency Self Assessment section of the system.

How much information am I required to submit as part of my application?

On the Competency Experience Reporting System, applicants are required to submit two main components:

- An **Employment History**: This section is essentially a "resume builder" in which you provide a brief description of your periods of employment.

- A **Competency Self-Assessment:** This section asks you to select examples from your work experience to demonstrate how you have achieved each Key Competency. There are character limits for each example, with 300 characters permitted for the "Situation" and "Outcome" sections and 1200 characters permitted for the "Action" section.

How many hours will it take to put together my application?

This will vary, but you can make it easier for yourself by maintaining records of your work history, the projects that you have been involved in and your CPD records. You can use the Competency Experience Reporting System to record your employment history and examples in draft form and build your self assessment as you gain further experience.

My work conditions are confidential. How do I get around this in submitting my Competency Self Assessment?

Generally Assessors do not need a high level of detail on confidential information – they need sufficient evidence to be satisfied that you are able to practice competently as a professional engineer. We would expect that this could be demonstrated by documentation that describes the nature of your work and its complexities without disclosing confidential details about solutions or business processes. All Engineers and Geoscientists BC Assessors are bound by confidentiality.

I have only worked on two major projects over my four years of experience. Do I need to use a different project for each Key Competency?

It is acceptable to reference the same major project in multiple Key Competency examples as long as you describe the specific actions that you took to demonstrate each Key Competency. Portions of the "situation" section may be repeated, but entire examples may not be. The "action" section in particular should be specific to each Key Competency.

Do I need to spread out my examples from all four years of my work experience, or can I focus on the most recent and highest level experience?

There is no requirement to cover the entire four years of experience through competency examples. Applicants are encouraged to select their strongest examples for each Key Competency, so focusing on recent experience is acceptable.

Can I provide a Validator who will not be verifying any specific Key Competencies to comment on my overall readiness for licensure, such as a Co-op experience supervisor?

Yes; you can name additional validators who will be asked to provide overall feedback on your readiness for professional licensure without asking them to verify any Key Competencies.

How long should my Competency Self-Assessment examples be?

While there is no required length, examples must be sufficiently detailed to provide the assessor with a clear picture of the nature and level of the work performed and how it pertains to the Key Competency being addressed. The "Situation" and "Outcome" sections are intended to be brief; both have 300 character limits in the online system. The "Action" section is where the assessors are looking for a detailed description of the specific actions taken that demonstrate the Key Competency, and it has a 1200 character limit. Point-form is optional in all three sections and is recommended for the "Action" section.

Engineers and Geoscientists BC COMPETENCY FRAMEWORK

1. Technical Competence (minimum overall competence level: 3)

Key Competencies

1.1 Demonstrate knowledge of regulations, codes, standards, and safety - this includes local engineering procedures and practices as applicable

1.2 Demonstrate knowledge of materials, or operations as appropriate, project and design constraints, design to best fit the purpose or service intended and address inter-disciplinary impacts.

1.3 Analyze technical risks and offer solutions to mitigate the risks

1.4 Apply engineering knowledge to design solutions

1.5 Be able to understand solution techniques and independently verify the results.

1.6 Safety awareness: be aware of safety risks inherent in the design; and Demonstrate Safety Awareness – on-site and possible safety authorization/certificate as appropriate

1.7 Demonstrate understanding of systems as well as of components of systems

1.8 Exposure to all stages of the process/project life cycle from concept and feasibility analysis through implementation

1.9 Understand the concept of quality control during design and construction including independent design check and independent reviews of design, field checks and reviews.

1.10 Transfer design intentions to drawings and sketches; Understand transmittal of design information to design documents

2. Communication (minimum overall competence level: 3)

Key Competencies

2.1 Oral
2.2 In Writing
2.3 Reading and Comprehension

3. Project and Financial Management (minimum overall competence level:**2**)

Key Competencies

3.1 Awareness of project management principles
3.2 Demonstrate increasing level of responsibility for project planning and implementation
3.3 Manage expectations in light of available resources
3.4 Understand the financial aspects of their work
3.5 Ask for and demonstrate response to feedback

4. Team Effectiveness (minimum overall competence level **3**)

Key Competencies

4.1 Work respectfully and with other disciplines/people
4.2 Work to resolve differences

5. Professional Accountability (Ethics & Professionalism) (minimum overall competence level: 3)

Key Competencies

5.1 Work with integrity, ethically and within professional standards (Indicators: Comply with the Code of Ethics; Apply professional ethics in meeting corporate directives)

5.2 Demonstrate an awareness of your own scope of practice and limitations

5.3 Understand how conflict of interest affects your practice

5.4 Demonstrate awareness of professional accountability

5.5 Demonstrate an understanding of appropriate use of the stamp and seal

5.6 Understand own strengths/weaknesses and know how they apply to one's position.

6. Social, Economic, Environmental and Sustainability (minimum overall competence level: 2)

Key Competencies

6.1 Demonstrate an understanding of the safeguards required to protect the public and the methods of mitigating adverse impacts

6.2 Demonstrate an understanding of the relationship between the engineering activity and the public

6.3 Understand the role of regulatory bodies **on** the practice of engineering

6.4 Be aware of any specific sustainability clauses that have been added to practice guidelines that apply to their area

6.5 To the extent possible, recognizing the applicant's position of influence, consider how sustainability principles could be applied and promoted in his/her specific work

7. Personal Continuing Professional Development (minimum overall competence level: 3)

Key Competencies

7.1 Demonstrate completion of professional development activities

7.2 Demonstrate awareness of gaps in knowledge and areas requiring further development

7.3 Develop a professional development plan to address gaps in knowledge and maintain currency in field of practice