

A Conceptual Framework for the Development of the Professional Technologist in B.C.

Interim Report to APEGBC & ASTTBC Councils
November 2011



ASTTBC/ APEGBC



PTech Framework Development Group

November 21, 2011

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Executive Summary

In June 2011, the Councils of ASTTBC and APEGBC appointed a PTech Framework Development Group (the Group), composed of equal Members of Council from ASTTBC and APEGBC, to *advise Councils through their Joint Executive Committees on the options and preferred alternative for a framework for the development and regulation of the PTech.*

The Group met six times between July and November 2011 to develop a model for a Professional Technologist (PTech) that would contribute to public interest and safety, while fulfilling a role that is:

- a. clearly different from that of a Professional Engineer or Engineering Licensee; and
- b. easily understood by the Public.

In developing and considering Options for models, members the Group consulted with their respective Councils to determine their positions on a number of attributes of the PTech concept. Development of a recommended model that meets criteria a and b above, consumed four of the Group's five meetings. The Group made [progress](#), but did not complete all of its [six deliverables](#). The Group also noted that formal consultation with affected stakeholders, while not included in the deliverables, should be undertaken. The Group offered that, should the two Councils agree, the Group will undertake to guide consultation, to be concluded by March 15, 2012. The Group would submit its final report to the Councils by April 15, 2012.

Group discussions were inconclusive on the terminology describing the field of independent practice of the PTech. The terms 'applied science technology', 'engineering technology' and 'applied science technology as it pertains to the application of engineering principles' were considered, with the objective of clearly distinguishing between the practice area of the PTech and the practice of professional engineering. The Group decided that, for the purposes of this report, it would use 'applied science technology as it pertains to the application of engineering principles', and would consider the terminology following stakeholder consultation.

The Group also agreed that the proposed model does not include the field of geoscience.

This report is therefore interim, and is considered to be Phase I of the Group's work. It recommends that stakeholder consultation take place and recommendations on legislation, governance and operations associated with the introduction of the PTech be included with Phase II.

Recommendations to the Joint Executive Committees of APEGBC and ASTTBC

1. *Professional Technologist (PTech) Model: Agreement in Principle*

It is recommended that the Councils of ASTTBC and APEGBC agree in principle on PTech Model [Option 2: PTech Practises in Currently Unregulated Areas](#) as outlined on Page 6 of this report.

Recommendations to the Joint Executive Committees of APEGBC and ASTTBC cont'd

2. Stakeholder Consultation

It is recommended that the Councils of ASTTBC and APEGBC approve the development and implementation of a mutually agreed-to formal stakeholder consultation plan as contemplated on Page 10 of this report.

3. Advice to the Minister of Advanced Education

It is recommended that the Councils of ASTTBC and APEGBC jointly advise the Minister of Advanced Education of progress to date on the development of the PTech Model and the details and timing of stakeholder consultation.



PTech Framework Development Group

Members

Jeff Holm, P.Eng.	Co-Chair, APEGBC President
Bill Macpherson, ASCT	Co-Chair, ASTTBC President
Matt Cameron, P.Eng.	APEGBC Appointee, Member of Council
Russell Dobie, ASCT	ASTTBC Appointee, Member of Council
Andy Mill, P.Eng., Struct.Eng.	APEGBC Appointee, Member of Council
Keith Trulson, ASCT, Eng.L.	ASTTBC Appointee, Member of Council

Staff Support

Derek Doyle, P.Eng.	CEO and Registrar, APEGBC
Jason Jung, ASCT	Manager, Member & Program Development, ASTTBC
John Leech, ASCT	Executive Director, ASTTBC
Gillian Pichler, P.Eng.	Director, Registration, APEGBC

Purpose and Deliverables

Purpose

To advise Councils through their Joint Executive Committees on the options and preferred alternative for a framework for the development and regulation of the PTech.

Deliverables

1. Examine the PTech Task Force report of March 2011, engaging task force members as necessary.
2. Determine how the introduction of PTech will contribute to the public interest and safety.
3. Define the role and scope of practice of the PTech within the realm of engineering technology and professional engineering.
4. Develop a collaborative framework or joint practice board for regulating PTech practice.
5. Develop a checklist of requirements to assist in further development of the regulatory framework of PTech practice (including admissions, practice review, quality assurance, complaints, investigation, discipline and enforcement).
6. Estimate the start-up, legal and operational costs over 5-years and suggest how the costs and revenues should be allocated.
7. Identify enabling legislation that may be required to facilitate implementation.

Progress on Deliverables

Some of the PTech Framework Development Team Deliverables have not been addressed in any depth including the framework for admissions, quality assurance, complaints processing, investigations and discipline. The Group recommends that appropriate consultation be carried out on the proposed model.

Additional time beyond the November 30, 2011 deadline set out in the Terms of Reference will therefore required to

- develop a communications and consultation plan
- consult on the proposed model;
- present any proposed model, with the results of consultation, to APEGBC and ASTTBC Councils
- complete the Deliverables; and
- frame a formal submission to government based on results of consultation; to be completed and forwarded to the Minister of Advanced Education the week of May 5, 2012.

Progress on the Deliverables is depicted in Figure 1 below.



Figure 1: Progress on PTech Framework Development Group Deliverables

Options for PTech

The Group considered two options for PTech:

Option 1: PTech Practises Professional Engineering in a Limited Scope

This option was seen by the Group as a twinning of the APEGBC Limited Licence and therefore there is no obvious enhancement of public protection. As a duplicate designation, it would be likely open to misinterpretation and confusion. Continual clarification would be needed on the difference between an EngL and a PTech.

Option 2: PTech Practises in Currently Unregulated Areas to be Defined through Third-Party Legislation

After much discussion and weighing of options and concepts, the Group decided that public protection could only truly be improved if PTech practice were targeted at areas of practice that are currently unregulated or where the ASCT is already recognized, and in which recognized or potential issues of public safety are present. The Group sought and received clarification from ASTTBC Council on its position with respect to this concept. It received a written proposal from the ASTTBC Council that accepted and articulated its concept of the aspects of this model.

The Group then developed the attributes of the proposed model with respect to:

- [Key Principles and Goals of PTech](#)
- [PTech Areas of Practice](#); and
- [PTech Governance](#), including the [Role of a Legislated Joint Board](#).

Details of each attribute are set out on the following pages.



Key Principles and Goals of PTech

- i. improved protection of the public interest vs status quo
- ii. PTech practice addresses a recognized existing problem of public safety
- iii. practitioners are recognized according to individual competencies (academic and experience)
- iv. area of practice for a PTech is not professional engineering but is applied science technology as it pertains to the application of engineering principles¹
- v. building an enduring and mutually respectful relationship between APEGBC and ASTTBC by collaborating in regulating their members' practice.

PTech Areas of Practice

- i. are applied science technology as it pertains to the application of engineering principles and do not include professional geoscience
 - a. use of terms which imply that the person is practising professional engineering or holding themselves out to be a professional engineer contravenes the *Engineers and Geoscientists Act*
- ii. practitioners who wish to practise professional engineering in British Columbia must become Engineering Licensees or Professional Engineers; and
- iii. do not prohibit practice by professional engineers
- iv. are identified, formally agreed to (through a [legislated APEGBC/ASTTBC Joint Board](#)) and jointly presented to the appropriate legislative body by APEGBC and ASTTBC. The model will also define how to handle situations where the two associations are not in accord.
- v. are articulated and embedded in third-party municipal, provincial or other regulatory third-party legislation (i.e. not in the Engineers and Geoscientists Act or the Applied Science Technologists and Technicians Act
- vi. are not assumed to be based on scopes of practice issued for Professional Technologists in other provinces or territories; and
- vii. are not assumed to be valid when embedded in the legislation of other provinces or territories; and
- viii. the proposed British Columbia Professional Technologist model is not related to the model currently in force in the Province of Alberta where the Professional Technologist has the right to practise professional engineering and professional geoscience in an individualised specified scope of practice.

¹ The terms 'applied science technology', 'engineering technology' and 'applied science technology as it pertains to the application of engineering principles' were considered, with the objective of clearly distinguishing between the practice area of the PTech and the practice of professional engineering. The Group decided that, for the purposes of this report, it would use 'applied science technology as it pertains to the application of engineering principles', and would consider the terminology following stakeholder consultation.



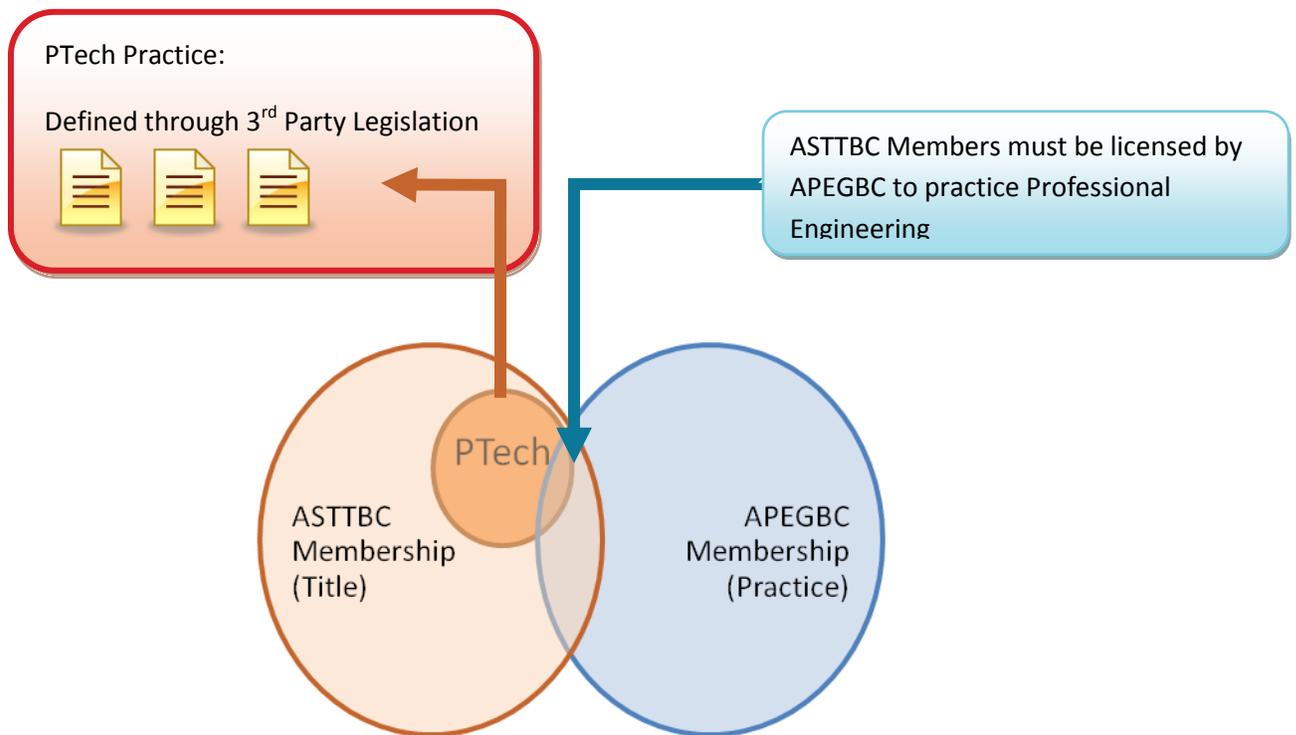


Figure 2 – Illustration of PTech Concept

Example of a PTech Area of Practice

The Group identified areas of practice where technical expertise is needed for life safety issues and lack of technical judgment is potentially dangerous. Public protection could be improved if a PTech were specified in third-party legislation as required to take responsibility for the work. One such example is to require that a PTech sign Letters of Assurance for structural, mechanical and electrical technology for Part 9 as defined in the BC Building Code Buildings (exclusive of single family dwellings).

PTech Governance

- i. PTech is a member of and is governed and regulated by ASTTBC
- ii. PTech practice is defined by 3rd party legislation or 3rd party regulation
- iii. Areas of practice are determined and proposed to third parties by a legislated APEGBC/ASTTBC Joint Board which is embedded in ASTTBC and APEGBC legislation;
- iv. the APEGBC/ASTTBC Joint Board also determines appropriate ways of protecting the public through PTech practice and provides ongoing guidance and issue resolution to the associations; and
- v. the model defines the process to be followed when the legislated APEGBC/ASTTBC Joint Board is not able to reach an accord on PTech practice rights .

Role of the Joint Board

The Group, while agreeing that the role of a legislated Joint Board will evolve over time, proposed that its mandate be at a minimum, to:

- i. determine appropriate ways of protecting the public through PTech practice and provide ongoing guidance and issue resolution to the associations
- ii. establish skill and competency criteria for PTech
 - a. with reference to the PTech Task Force recommendations, it was concluded that only ASCT's will be able to apply for PTech
- iii. establish criteria for quality assurance processes for PTech including the discipline process; and review their adequacy on an ongoing basis
- iv. provide general support of enforcement of their respective Acts to both associations
- v. research and define areas of practice to be recommended as requiring a PTech through third party legislation towards improved public protection; and
 - a. consider requests from regulators for areas of practice appropriate to PTech
 - b. review existing third party legislation that confers right to practice as Qualified Persons to Applied Science Technologists(ASCT's) or 'Technologists'; and determine proposed changes to include PTech
 - c. establish specific competency requirements for PTech's practising in specified areas through third party legislation
 - d. identify and inform sponsors/champions in government and elsewhere who will support the case for requiring PTech through specific third party legislation to improve public protection
 - e. jointly make the case to regulators for modifications to existing legislation to include PTech or to articulate areas in existing legislation where requiring a PTech is necessary for improved public protection (e.g. Part 9 buildings that are not houses; and
 - f. consider requests from regulators regarding PTech practice
- vi. consider and recommend resolution for practice issues that affect members or designated/certified specialists from both associations
- vii. consider and make recommendations for issues related to national mobility of holders of PTech designation; and
- viii. establish criteria for use of PTech seal.

The Joint Board will not

- i. review individual applications for PTech; or
- ii. deal with enforcement or discipline cases for either association, but may deal with general enforcement or practice issues arising from individual cases.

Phase II: Stakeholder Consultation and Reformulating the Model

Should the Joint Executive Committees and Councils of ASTTBC and APEGBC approve the proposed model in principle, the Group proposes that Phase II be implemented, including:

- advising the Minister of Advanced Education of the proposed model and stakeholder communication/consultation plan
- development of a communications and consultation plan, with consultations to commence December 2011 and conclude March 15, 2012; to include:
 - the information package for consultation, providing specificity and detail to affected stakeholders; and
 - examples of areas of legislation in which PTech will enhance public safety (e.g. BC Building Code - Part 9 buildings); and
- presentation, by April 15, 2012², of the results of the consultation to APEGBC and ASTTBC Councils with:
 - assessment of the feasibility, integrity and benefits of the proposed model, including any 'quick win' areas of practice that have been identified by stakeholders as receiving the greatest public protection benefit from the expertise of the PTech; and
 - revisions to the model if required, based on the results of the consultation;
 - changes to the APEGBC/ASTTBC legislation and budget for implementation; and
 - formal submission to Government on the proposed model and the recommendations for legislative change.

Stakeholders consulted will include:

- Canadian provincial and territorial regulatory bodies for engineering and technology
- Canadian Framework for Licensure Group
- APEGBC and ASTTBC membership
- Authorities Having Jurisdiction; and
- appropriate government agencies

² Final report to be ready by April 15, 2012. Consideration of the report will be complete by May 4, 2012, the date of the APEGBC Council meeting.