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Samson Bélair
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Le 16 juin 2003

Monsieur Gilles Côté
Chef – Approvisionnement énergétique
Hydro-Québec
75, boul. René-Lévesque Ouest
Montréal QC H2Z 1A4

Objet : Appui externe relatif à l'appel d'offres
A/O 2002-01 pour les achats d'électricité
Rapport du représentant officiel

Monsieur Côté,

Il nous fait plaisir de vous transmettre le rapport relatif à notre rôle d'accompagnement d'Hydro-Québec Distribution dans le cadre du processus d'appel d'offres et d'analyse des soumissions et de conseil auprès d'Hydro-Québec Distribution sur l'application de *La Procédure d'appel d'offres et d'octroi pour les achats d'électricité*.

Le présent rapport contient nos observations et commentaires quant aux pratiques utilisées par Hydro-Québec Distribution du début du processus d'appel d'offres jusqu'à la préparation des contrats d'achat d'électricité, incluant la signature des parties aux ententes contractuelles.

Le corps du rapport a été préparé par monsieur Pierre Devost de notre cabinet alors que les annexes A, B, et C ont été préparées par monsieur Wayne Oliver de Merrimack Energy Group, notre sous-traitant dans le cadre de ce mandat. Leurs curriculum vitae se retrouvent à l'annexe D.

En espérant le tout conforme, je vous prie, Monsieur Côté, d'accepter nos cordiales salutations.

Guy Chabbert, FCGA, FCMC
Directeur régional des Opérations
Solutions

Samson Bélair
Deloitte
& Touche

Hydro-Québec –

Appui externe relatif à l'appel d'offres
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Contexte

Hydro-Québec Distribution a retenu les services de Samson Bélair/Deloitte & Touche pour l'accompagner dans le processus d'appel d'offres et d'analyse de soumissions, pour agir comme son représentant officiel et pour conseiller Hydro-Québec Distribution sur l'application de *La Procédure d'appel d'offres et d'octroi pour les achats d'électricité* (la " Procédure d'appel d'offres ").

Samson Bélair/Deloitte & Touche a été assisté, lors de la réalisation de ce mandat, par la firme Merrimack Energy Group.

Dans ce contexte, les principaux éléments de notre mandat étaient les suivants :

- Jouer un rôle d'intermédiaire dans les communications écrites entre Hydro-Québec Distribution et les soumissionnaires;
- Assister aux rencontres et aux conférences téléphoniques entre Hydro-Québec Distribution et les soumissionnaires; et,
- Transmettre des avis et commentaires à Hydro-Québec Distribution quant au contenu de divers documents émis par Hydro-Québec Distribution avant leur publication.

Le présent rapport traite des activités du processus d'appel d'offres A/O 2002-01 dans le cadre de quatre (4) phases distinctes qui se sont déroulées du 8 janvier 2002 au 10 juin 2003:

Phase 1 : Du début du processus jusqu'à la diffusion de l'appel d'offres (du 8 janvier 2002 au 21 février 2002);

Phase 2 : De la diffusion de l'appel d'offres jusqu'à la réception et l'ouverture des soumissions (du 22 février 2002 au 14 juin 2002);

Phase 3 : De l'ouverture des soumissions jusqu'à la sélection des soumissions retenues (du 17 juin 2002 au 4 octobre 2002); et,

Phase 4 : De la sélection des soumissions retenues jusqu'à la préparation des contrats, incluant la signature des parties aux ententes contractuelles (du 5 octobre 2002 au 10 juin 2003).

Nos observations et commentaires quant à l'application de la Procédure d'appel d'offres sont indiqués dans les pages suivantes. Nos observations et commentaires quant aux parties plus techniques relatives au document d'appel d'offres, au cadre méthodologique et outils d'évaluation des soumissions à être utilisés, ainsi qu'à l'application de ces outils et méthodes d'évaluation se retrouvent aux annexes A, B et C.

La structure de la présentation de nos observations et commentaires dans le présent rapport s'appuie sur la structure de présentation de la Procédure d'appel d'offres.

Généralités

Des procédures détaillées de fonctionnement au jour le jour entre Hydro-Québec Distribution, Samson Bélair/Deloitte & Touche et les soumissionnaires, respectant la Procédure d'appel d'offres, ont été élaborées et implantées afin d'assurer une communication efficace et rapide entre Hydro-Québec Distribution, les soumissionnaires et Samson Bélair/Deloitte & Touche.

Phase 1 : Du début du processus jusqu'à la diffusion de l'appel d'offres

Le document d'appel d'offres

- Commentaires sur le document d'appel d'offres final "version papier":

  - Le document français d'appel d'offres, le contrat-type et la formule de soumission ont été revus par Samson Bélair/Deloitte & Touche à plusieurs reprises au cours de sa préparation et des rencontres/appels téléphoniques ont eu lieu avec les représentants d'Hydro-Québec Distribution afin de discuter des commentaires et questions soulevés. Aucun point à régler n'est resté en suspens dans la version finale papier du document.

  - Nous n'avons pas noté de divergences importantes entre la version anglaise et française du document d'appel d'offres; en effet, seules deux différences ont été relevées entre les deux documents : une ligne de texte en français n'a pas été traduite en anglais (par contre, la correction a été effectuée lors de l'émission de l'addenda no. 1), et certaines lignes de texte ne se retrouvent pas à la même page dans les deux documents. Ces commentaires ont été transmis à Hydro-Québec Distribution.

- Commentaires sur le document d'appel d'offres final "version papier" versus "version électronique sur le site Internet" d'Hydro-Québec Distribution :

  - Nous n'avons pas noté de différences entre le contenu de la "version électronique" du document d'appel d'offres français et le contenu de la "version papier" de ce document. Il en est de même pour le document papier et électronique anglais; seules certaines lignes de texte ne se retrouvent pas à la même page dans les documents. Ces commentaires ont été transmis à Hydro-Québec Distribution.

  - L'annexe A renferme nos commentaires quant au contenu du document d'appel d'offres final par rapport aux tendances et normes de l'industrie, ainsi qu'en relation avec la Procédure d'appel d'offres. Nos principaux commentaires sont les suivants :

    - Le contenu du document d'appel d'offres lancé par Hydro-Québec Distribution représente généralement les tendances et les pratiques de l'industrie pour ce type d'appel d'offres;
    - Le document d'appel d'offres contient les informations répondant aux exigences identifiées dans la Procédure d'appel d'offres; et,
    - Le contenu du document d'appel d'offres tient compte en général des normes de l'industrie.

La gestion de la distribution du document d'appel d'offres

- Dépôt du document à la Régie de l'énergie :
  - Le 25 octobre 2001, Hydro-Québec Distribution déposait à la Régie de l'énergie une demande d'approbation de son plan d'approvisionnement 2002-2011. À plus court terme, Hydro-Québec Distribution demandait à la Régie de lui permettre de lancer un premier appel d'offres à compter du 15 janvier 2002 pour des contrats de long terme (15 à 20 ans) pour une puissance totale de 1 000 MW. En date du 21 janvier 2002, la Régie de l'énergie autorisait Hydro-Québec Distribution à lancer un premier appel d'offres de 600 MW sous certaines conditions.
  - Une première version du document d'appel d'offres a été déposée à la Régie le 31 janvier 2002, soit quelque quinze (15) jours ouvrables avant le lancement de l'appel d'offres (i.e. le 21 février 2002).
- Accessibilité et qualité des sites Internet d'Hydro-Québec Distribution :
  - Les sites Internet français et anglais d'Hydro-Québec Distribution ont été revus par Samson Bélair/Deloitte & Touche à quelques reprises au cours de leur préparation et des rencontres/ appels téléphoniques ont eu lieu avec les représentants d'Hydro-Québec Distribution afin de discuter des commentaires et questions soulevés. Aucun point à régler n'est resté en suspens dans la version finale du site.
  - Nous n'avons rencontré aucun problème d'accès durant nos tests, ce qui nous permet de conclure que l'accès aux sites Internet par les entreprises désirant soumissionner n'était pas limité.
  - Nous avons constaté que les sites étaient conviviaux et que le document d'appel d'offres était disponible dans les deux langues (i.e. site français pour la version française; et site anglais pour la version anglaise).
  - Aucune situation problématique n'a été mentionnée par les soumissionnaires potentiels.

La diffusion de l'appel d'offres

- Plusieurs modes de diffusion ont été utilisés afin d'assurer une couverture aussi large que possible aux soumissionnaires potentiels lors du lancement de l'appel d'offres :
  - Annonce de l'avis d'appel d'offres dans les grands quotidiens incluant La Presse, La Gazette, Le Journal de Montréal, Le Soleil, le Globe & Mail, le National Post et le New York Times.
  - Communiqué de presse pour diffusion auprès de plus de 80 publications spécialisées du domaine de l'énergie/pétrole en Amérique du Nord sans compter tous les médias généralistes du Québec, du Canada et des États-Unis.
  - Annonce de l'avis sur le site Internet d'Hydro-Québec Distribution.

- Envoi ciblé d'un document sommaire à une liste de plus de 80 soumissionnaires potentiels actifs dans le domaine au Québec, au Canada et aux États-Unis.

- Parution de nombreux articles de journaux dans des médias du Québec, du Canada et des États-Unis.

Conclusion

- Les pratiques actuelles d'Hydro-Québec Distribution respectent les exigences de la Procédure d'appel d'offres et sont acceptables selon les standards de l'industrie.

Phase 2 : De la diffusion de l'appel d'offres jusqu'à la réception et l'ouverture des soumissions

Les communications avec les soumissionnaires

Les addenda

- Commentaires généraux relatifs aux addenda

  - Au total, quatre (4) addenda ont été émis dans le cadre de l'appel d'offres. Les caractéristiques principales de ces addenda sont les suivantes :

    - L'addenda no. 1 :

      A été diffusé le 14 mars 2002 et traitait principalement de l'augmentation de la puissance recherchée de 600 à 1 200 MW. De plus, cet addenda indiquait qu'aucun soumissionnaire ne pouvait offrir plus de 600 MW sur un même site.

    - L'addenda no. 2 :

      A été diffusé le 16 avril 2002 et traitait principalement de l'augmentation de la limite maximale du coefficient de livraison de 90 à 94 %; et, de la possibilité de déterminer un coefficient de livraison spécifique pour fins d'entretien majeur à tous les cinq (5) ans au maximum.

    - L'addenda no. 3 :

      A été diffusé le 25 avril 2002 et traitait principalement du mode d'approvisionnement en combustibles.

    - L'addenda no. 4 avec sa révision :

      A été émis le 4 juin et révisé le 6 juin 2002 et traitait exclusivement de la possibilité par les soumissionnaires de procéder au paiement des frais d'analyse des soumissions par traite bancaire ou par chèque en plus du mode de paiement par chèque visé.

- Commentaires sur le contenu final des addenda "version papier"

  - Les quatre addenda en français ont été revus par Samson Bélair/Deloitte & Touche au cours de leur préparation et des entretiens téléphoniques ont eu lieu avec les représentants d'Hydro-Québec Distribution afin de discuter des commentaires et questions soulevés. Certains points mineurs sont restés en suspens dans la version finale papier des addenda. Ces commentaires ont été transmis à Hydro-Québec Distribution.

- Nous n'avons noté que quelques différences mineures entre la version anglaise et française des addenda. Des commentaires à cet effet ont été transmis à Hydro-Québec Distribution.

- Commentaires sur le contenu final des addenda "version papier" versus "version électronique sur le site Internet"

  - Nous n'avons pas noté de différences entre le contenu de la "version électronique" des addenda français et anglais et le contenu de la "version papier" de ces addenda.

- Commentaires sur la diffusion des addenda

  - Les addenda ont été communiqués par voie électronique ou papier à tous les soumissionnaires qui ont déposé un formulaire d'inscription et ont également été affichés sur le site Internet d'Hydro-Québec Distribution.

  - Plusieurs modes de diffusion ont été utilisés afin d'assurer une couverture aussi large que possible aux soumissionnaires potentiels lors du préavis à l'addenda no.1 :

    - Préavis sur le site Internet d'Hydro-Québec Distribution.

    - Compte tenu de l'augmentation importante des quantités d'électricité recherchées, envoi ciblé d'un document sommaire à une liste de plus de 80 soumissionnaires potentiels actifs dans le domaine au Québec, au Canada et aux États-Unis (incluant tous les intéressés à soumissionner ayant confirmé leur présence à la conférence préparatoire ou ayant acheté la copie papier du document d'appel d'offres).

    - Parution de nombreux articles de journaux dans des médias du Québec, du Canada et des États-Unis qui ont publié de l'information lors de l'annonce du préavis.

  - L'avis d'émission de l'addenda no.1 ainsi que l'addenda lui-même ont été affichés sur le site Internet d'Hydro-Québec Distribution afin que tous les soumissionnaires potentiels puissent obtenir une copie de cet addenda.

  - L'addenda no. 2 a été annoncé dans le compte rendu de la conférence préparatoire qui a été affiché sur le site Internet du Distributeur. De plus, cet addenda a été annoncé par avis aux soumissionnaires inscrits à l'appel d'offres et a été affiché sur le site Internet du Distributeur.

  - L'addenda no. 3 a été annoncé par avis aux soumissionnaires inscrits à l'appel d'offres et a été affiché sur le site Internet du Distributeur.

  - L'addenda no. 4 et sa révision ont été annoncés par avis aux soumissionnaires inscrits à l'appel d'offres et ont été affichés sur le site Internet du Distributeur.

Les questions–réponses des soumissionnaires potentiels

- Commentaires sur le contenu des réponses aux questions :
  - Du 22 février au 4 juin 2002, soit au cours de la période disponible aux soumissionnaires potentiels pour poser des questions, quelque 82 questions provenant des soumissionnaires potentiels ont été répondues par Hydro-Québec Distribution.
  - Nous n'avons noté aucun biais apparent ou incohérence dans la formulation des réponses d'Hydro-Québec Distribution.
- Commentaires sur la diffusion des réponses aux questions :
  - Hydro-Québec Distribution a répondu à toutes les questions adressées par un fournisseur ayant transmis un formulaire d'inscription dûment complété. Les réponses ont été fournies directement au demandeur par téléphone à quelques occasions (dans la mesure où les questions étaient simples et concernaient les procédures d'appel d'offres) ou par voie électronique (selon le mode de communication de la demande originale.) Dans tous les cas, les réponses ont été affichées sur le site Internet d'Hydro-Québec Distribution.
  - En date du 24 mai 2002, un avis de rappel a été envoyé par courriel à tous les soumissionnaires inscrits à l'appel d'offres leur indiquant que la date limite pour faire parvenir des questions était le 4 juin 2002, cette disposition permettant d'assurer que toutes les questions seraient répondues avant la date de dépôt des soumissions.

La conférence préparatoire

- Commentaires relatifs à la conférence préparatoire :
  - Une conférence préparatoire a été tenue à Montréal les 26 (en français) et 27 mars 2002 (en anglais), soit environ cinq semaines après le lancement de l'appel d'offres.
  - Les personnes intéressées à participer à la conférence étaient invitées à s'inscrire à l'avance. Cependant, la participation à cette conférence n'était pas obligatoire pour présenter une soumission.
  - Les participants à la conférence pouvaient obtenir sur place une copie papier du document d'appel d'offres en acquittant le paiement prévu pour l'obtention du document. Aucun participant ne s'est procuré le document d'appel d'offres papier à la conférence.
  - La première partie de la conférence s'est déroulée sous la forme d'une présentation résumant les principales caractéristiques de l'appel d'offres. La deuxième partie était consacrée à une période de questions de l'auditoire et ce, jusqu'à épuisement des questions.
  - Au total, quelque 181 participants représentant 88 entreprises ont assisté à une ou l'autre des deux sessions de la conférence.

- Hydro-Québec Distribution a tenu un registre des entreprises présentes à la conférence préparatoire, lequel a été affiché sur son site Internet français et anglais à partir du 5 avril 2002.
- Le compte rendu français et anglais de la présentation et des questions-réponses, découlant de la conférence, préparés par Hydro-Québec Distribution, a aussi été affiché sur le site Internet à partir du 11 avril 2002.
- Les participants à la conférence ont été avisés de la parution de ces informations sur le site Internet du Distributeur.
- Le compte rendu faisait aussi état des compléments de réponses à des questions posées lors de la conférence préparatoire et qui avaient été traitées en différé.
- Nous n'avons noté que quelques différences mineures dans le contenu du compte rendu affiché sur le site français par rapport à celui affiché sur le site anglais. De plus, nous n'avons observé aucun biais apparent quant à la formulation des réponses.

La réception du formulaire d'inscription

- Commentaires relatifs à la réception des formulaires d'inscription :
  - Le document d'appel d'offres contenait un formulaire d'inscription que tous les soumissionnaires intéressés devaient remplir et retourner à Hydro-Québec Distribution avant le 30 avril 2002 pour lui signifier leur intention de présenter une soumission dans les délais prescrits.
  - Sur réception dudit formulaire et du paiement des frais d'inscription, Hydro-Québec Distribution a transmis à chaque partie intéressée à soumissionner un accusé de réception avec un code confidentiel lui permettant de soumettre des questions relativement à l'appel d'offres.
  - Au total, 42 inscriptions ont été effectuées dans le cadre de l'appel d'offres avant la date limite de dépôt du formulaire d'inscription.
  - Un avis de rappel a été envoyé en date du 22 avril 2002 aux entreprises ayant assisté à la conférence préparatoire leur signifiant que la date limite d'inscription à l'appel d'offres était le 30 avril 2002.

La réception des soumissions

- Commentaires relatifs à la réception des soumissions :
  - Un avis de rappel a été envoyé le 5 juin 2002 à tous les soumissionnaires inscrits leur signifiant qu'ils devaient déposer leur soumission au bureau des soumissions désigné, soit dans les locaux de Samson Bélair/Deloitte & Touche avant le 13 juin 2002 à 16h00.

- Les soumissions acceptées ont été déposées au bureau des soumissions désigné par Hydro-Québec Distribution avant 16h00 le 13 juin 2002.

- La date et l'heure de réception ont été inscrites sur chaque soumission et un inventaire des soumissions reçues a été tenu à jour. De plus, une confirmation de réception a été émise et remise au transporteur. Les soumissions scellées ont été gardées en consignation au bureau des soumissions jusqu'à la date d'ouverture des soumissions, soit le 14 juin 2002 à 09h00.

- Au total, 14 livraisons de 12 soumissionnaires ont été reçues. Aucune livraison n'a été reçue après la date et l'heure limites de dépôt des soumissions.

L'ouverture des soumissions

- Commentaires relatifs à l'ouverture des soumissions :

  - L'ouverture des soumissions s'est effectuée en public le 14 juin à 09h00 dans les locaux de Samson Bélair/Deloitte & Touche par l'équipe d'Hydro-Québec Distribution en présence du représentant officiel d'Hydro-Québec Distribution (i.e. Samson Bélair/Deloitte & Touche) et d'un auditoire d'environ trente (30) personnes.

  - Une procédure détaillée a été suivie incluant la lecture à haute voix des informations suivantes et la préparation d'un inventaire des soumissionnaires et des principaux paramètres de chacune des soumissions : nom du soumissionnaire; nature de la source d'approvisionnement; localisation de la source d'approvisionnement; puissance offerte et date de disponibilité de la source d'approvisionnement. Cet inventaire a été rendu public dès la fin de la séance d'ouverture des soumissions.

  - Au total, 19 soumissions ont été reçues, totalisant quelque 4 716 MW de puissance offerte. Aucune soumission n'a été rejetée au cours de cette séance.

  - Après l'ouverture des soumissions, celles-ci ont été gardées en consignation au bureau des soumissions jusqu'au 15 juin 2002.

  - Le 15 juin 2002, les boîtes contenant les soumissions ont été transportées dans les locaux d'Hydro-Québec Distribution. Les copies des soumissions ont été mises en filières et celles-ci ont été verrouillées alors que l'original de chaque soumission a été transporté dans la voûte d'Hydro-Québec.

  - Une équipe conjointe d'Hydro-Québec Distribution et de Samson Bélair/Deloitte & Touche a passé en revue le contenu des 19 soumissions déposées et a procédé au contrôle de la présence de défauts entraînant le rejet automatique d'une soumission lors de l'ouverture des soumissions.

- Trois (3) soumissions ne rencontraient pas un des sept (7) critères de défaut entraînant le rejet automatique. Dans ce contexte, il a été décidé qu'étant donné que la Procédure d'appel d'offres est une première au Québec, il y avait lieu de faire preuve d'une certaine flexibilité en autant que le principe d'équité soit respecté. C'est pourquoi Hydro-Québec Distribution a demandé par écrit à ces soumissionnaires, via Samson Bélair/Deloitte & Touche, d'apporter les correctifs appropriés à leurs soumissions. Deux (2) des trois (3) soumissionnaires se sont conformés aux exigences d'Hydro-Québec Distribution à l'intérieur des délais prescrits.

- Une soumission a été rejetée à l'ouverture des soumissions; il s'agit de la soumission de PG & E National Energy Group qui a été rejetée car le soumissionnaire a indiqué que son offre n'était pas valide jusqu'au 21 février 2003. Dans ce contexte, le chèque pour les frais d'analyse de la soumission, la formule de certification de soumission et la résolution du conseil d'administration ont été retournés, via Samson Bélair/Deloitte & Touche, à l'entreprise avec l'avis de rejet.

- Un engagement de confidentialité a été envoyé, via Samson Bélair/Deloitte & Touche, aux quatre (4) soumissionnaires ayant requis le traitement confidentiel d'informations spécifiques jointes à leur soumission, avec engagement à Hydro-Québec Distribution à retourner ces documents à la fin de l'appel d'offres.

- Une lettre a été envoyée aux soumissionnaires ayant passé avec succès l'étape de l'Ouverture des soumissions – Rejet automatique. La liste finale des soumissions acceptées et rejetée à l'ouverture des soumissions a été rendue accessible sur le site Internet d'Hydro-Québec Distribution en date du 12 juillet 2002.

La préparation de la méthode d'évaluation des soumissions

- Commentaires relatifs à la préparation de la méthode d'évaluation des soumissions :

  - De la mi-mars à la mi-juin 2002, de nombreuses rencontres et entretiens téléphoniques ont eu lieu entre Hydro-Québec Distribution et Samson Bélair/Deloitte & Touche afin de discuter du processus général, du cadre méthodologique et des outils d'analyse et d'évaluation des soumissions (i.e. Étapes 1, 2 et 3 : Analyse des soumissions, incluses dans le document d'appel d'offres au Chapitre 3).

  - De la mi-mai au début juin 2002, des tests ont été réalisés afin d'améliorer la méthodologie et les outils d'évaluation à être utilisés lors de l'étape 2 (classement des soumissions par catégorie).

  - La méthode d'évaluation des soumissions élaborée par Hydro-Québec Distribution a été revue par Samson Bélair/Deloitte & Touche au cours de sa préparation et des rencontres et entretiens téléphoniques ont eu lieu avec les représentants d'Hydro-Québec Distribution afin de discuter des commentaires et questions soulevés au sujet du processus, du cadre méthodologique et des outils d'analyse et d'évaluation des soumissions. Aucun point à régler n'est resté en suspens à la date de dépôt des soumissions..

  - L'annexe B renferme nos commentaires et nos observations quant à la méthode et aux outils d'évaluation retenus par Hydro-Québec Distribution dans le cadre de cet appel d'offres. Nos principaux commentaires sont les suivants :

    - Cette annexe décrit le processus d'évaluation des soumissions et les méthodologies quantitatives proposées par Hydro-Québec Distribution afin d'effectuer l'analyse monétaire, et compare le processus retenu aux tendances de l'industrie.

    - Le choix des méthodologies et des outils appropriés doit prendre en considération les caractéristiques particulières du système d'Hydro-Québec Distribution et les exigences stipulées à l'appel d'offres.

    - L'appel d'offres requiert que les soumissionnaires incluent tous les coûts dans leurs soumissions respectives, ce qui assure que les soumissions puissent être évaluées de façon équitable.

    - Hydro-Québec Distribution a proposé d'utiliser plusieurs méthodologies et outils pour effectuer l'analyse monétaire des soumissions aux étapes 2 et 3 du processus d'évaluation, incluant l'analyse du coût unitaire actualisé ("real levelized cost analysis") à l'étape 2 et un modèle de simulation horaire de la charge ("detailed generation planning model") à l'étape 3.

    - Le choix de chaque outil est approprié pour le type d'application prévu et devrait permettre une évaluation monétaire appropriée.

- Cette annexe conclut que le processus d'évaluation en trois (3) étapes (i.e. Évaluation des soumissions en fonction des exigences minimales, Évaluation des soumissions par catégorie, et Simulation de combinaisons de soumissions) et les méthodologies proposées par Hydro-Québec Distribution reflètent généralement les normes de l'industrie et devraient permettre la réalisation d'un processus d'évaluation complet et efficace.

Conclusion

- Les pratiques actuelles d'Hydro-Québec Distribution respectent les exigences de la Procédure d'appel d'offres.

Phase 3 : De l'ouverture des soumissions jusqu'à la sélection des soumissions retenues

Le processus de sélection

- Commentaires relatifs au processus de sélection des soumissions :

  - L'équipe conjointe formée de représentants d'Hydro-Québec Distribution et de Samson Bélair/Deloitte & Touche a évalué la conformité de chacune des soumissions. Parmi les demandes de renseignements envoyées aux soumissionnaires, plusieurs visaient à obtenir des éclaircissements relatifs à la conformité des soumissions à une ou plusieurs règles de conformité établies dans la méthodologie d'évaluation d'Hydro-Québec Distribution.

  - Les principales déviations avaient trait à l'utilisation d'indices non admissibles dans la formule de prix; au fait que la valeur du coefficient de livraison n'était pas conforme; que la date garantie de début des livraisons n'était pas le 1er mars 2007; que la durée de 25 ans pour le contrat n'était pas adéquatement justifiée; et, que la soumission ne démontrait pas que le projet pouvait satisfaire aux normes d'émissions atmosphériques. Les soumissionnaires ont répondu à ces demandes de renseignements à la satisfaction d'Hydro-Québec Distribution, à une exception près.

  - En effet, un des soumissionnaires n'a pas été en mesure d'établir de façon claire qu'il pouvait se conformer au critère spécifiant que "la centrale doit rencontrer les obligations des quantités contractuelles à elle seule pour une année typique" sans modifier le contenu de sa soumission. Hydro-Québec Distribution n'a pas statué de façon finale à ce sujet car les demandes de renseignements additionnels ont été interrompues lorsqu'il est devenu évident que la soumission ne ferait pas partie des meilleures combinaisons de soumissions.

  - Aucune soumission n'a été rejetée parce que jugée frivole ou non conforme.

  - Une deuxième équipe conjointe a passé en revue le contenu des 19 soumissions déposées afin de dresser une liste des informations manquantes ou nécessitant des éclaircissements pour l'évaluation prévue aux étapes subséquentes.

  - Par la suite, le processus de sélection a comporté trois (3) étapes d'analyse à savoir :

    - Étape 1 : Évaluation des soumissions en fonction des exigences minimales
      Étape complétée à la mi-juillet
    - Étape 2 : Classement des soumissions par catégorie
      Étape complétée à la fin-août
    - Étape 3 : Simulation de combinaisons de soumissions
      Étape complétée à la fin-septembre

- Au cours de la période du 17 juin au 1er octobre 2002, période au cours de laquelle les trois (3) étapes d'analyse ont été réalisées, les informations manquantes des soumissionnaires ou les besoins d'éclaircissements auprès des soumissionnaires ont fait l'objet de demandes de renseignements écrites de la part d'Hydro-Québec Distribution. Ces demandes, spécifiant les informations additionnelles à fournir ou les éclaircissements à apporter et le délai accordé pour le faire, ont été acheminées à chacun des soumissionnaires, par courriel, via Samson Bélair/Deloitte & Touche. Dans la plupart des cas, le délai de réponse fixé par HQD a été de cinq (5) jours ouvrables. À quelques occasions, Hydro-Québec Distribution a consenti un délai additionnel et ce, dans la mesure où la (les) demandes de renseignement(s) à répondre par le soumissionnaire étaient jugées plus complexes ou que le soumissionnaire apportait une justification jugée raisonnable pour accorder un tel délai. Les soumissionnaires ont fait parvenir leurs réponses par courriel, via Samson Bélair/Deloitte & Touche. Au total, 65 demandes de renseignements totalisant 154 questions ont été expédiées aux soumissionnaires.

- Aucune soumission n'a été rejetée lors de la réalisation de ces trois (3) étapes d'analyse.

- Les cinq (5) critères relatifs aux exigences minimales qui ont été analysés sont les mêmes que ceux que l'on retrouve au document d'appel d'offres. Il s'agit du choix d'un site; des garanties financières; de l'expérience du soumissionnaire; de la maturité technologique; et, des délais de raccordement des équipements de production.

- Au cours de la deuxième étape de l'évaluation des soumissions, les cinq (5) critères retenus pour fins d'analyse et la pondération associée sont les mêmes que ceux que l'on retrouve au document d'appel d'offres. Il s'agit du coût de l'électricité; de la solidité financière; de l'expérience pertinente; de la faisabilité du projet; et, de la flexibilité. Dans un premier temps, les soumissions ont été classées par catégorie de produits offerts (i.e. livraisons en base; livraisons cyclables) et chacune d'entre elles a été évaluée par rapport aux critères à incidence non monétaire et monétaire. Par la suite, les soumissions ont été classées, à l'intérieur de chaque catégorie, par ordre décroissant de pointage obtenu de façon à identifier les meilleures offres pour chacune des catégories de produits.

- Au cours de la troisième étape de l'évaluation des soumissions, différentes combinaisons de soumissions ont été constituées de façon à identifier la combinaison qui présentait le coût total le plus faible compte tenu des quantités recherchées de chaque produit. Ces combinaisons ont été formées en utilisant les meilleures soumissions des diverses catégories de soumissions (i.e. base et cyclable) de façon à atteindre les nouvelles quantités d'énergie recherchées (750 MW en base; et, 300 MW de cyclable). En effet, sur la base de la prévision de la demande à long terme réalisée en 2002, une nouvelle estimation des approvisionnements additionnels requis (AAR) a été dérivée et faisait état d'une quantité d'électricité recherchée de 1 050 MW en 2007 (plutôt que 1 200 MW, tel qu'indiqué au document d'appel d'offres incluant l'Addenda no. 1).

- Dans ce contexte, 29 combinaisons ont été construites à partir de 15 offres d'énergie en base provenant de huit (8) projets différents et de cinq (5) offres d'énergie cyclable provenant de deux (2) projets différents.

- De plus, la valeur des paramètres économiques utilisés lors de l'analyse des soumissions s'est appuyée sur des prévisions réalisées par des organismes indépendants d'Hydro-Québec Distribution. La valeur de ces paramètres a été établie avant le dépôt des soumissions sauf dans le cas de la prévision du prix du gaz qui a été mise à jour à deux (2) reprises après le dépôt des soumissions. Dans un premier cas, la révision a servi à corriger une erreur d'interprétation des valeurs présentées par l'un des organismes consultés. Dans le deuxième cas, la révision a découlé d'une remise en question de la valeur du "basis" Dawn-Québec.

- Le modèle de simulation détaillée utilisé lors du calcul du coût total des combinaisons de soumissions (i.e. le logiciel d'Henwood Energy Services) n'a pas fait l'objet d'une validation préalable par Samson Bélair/Deloitte & Touche. Par contre, Henwood Energy Services a fourni à Hydro-Québec Distribution une liste de clients du secteur de l'énergie ayant acheté la licence pour utiliser le logiciel d'Henwood (i.e. Prosym/Risksym) afin d'effectuer diverses analyses. Au total, Henwood Energy Services a vendu cette licence à de nombreuses organisations.

- À notre connaissance, tous les soumissionnaires ont été traités sur le même pied d'égalité tout au long du processus de sélection et les informations échangées entre Hydro-Québec Distribution et les soumissionnaires ont été traitées de façon confidentielle.

- Nous n'avons pas noté de divergences significatives au niveau du processus, entre la méthodologie d'évaluation des soumissions préparée avant le dépôt des soumissions et son application par Hydro-Québec Distribution au cours de la période du 17 juin au 4 octobre 2002.

- L'annexe C renferme nos commentaires et nos observations quant à l'application des outils et méthodes d'évaluation et de sélection retenus par Hydro-Québec Distribution. Nos principaux commentaires sont les suivants :

  - Cette annexe décrit les activités associées principalement aux étapes d'évaluation et de sélection des soumissions prévues au processus d'appel d'offres. La période d'évaluation s'est étendue de la réception des soumissions jusqu'à la sélection des soumissions retenues.

  - Le processus d'évaluation en trois (3) étapes suivi par Hydro-Québec Distribution (i.e. Exigences minimales, Évaluation monétaire et non-monétaire, Simulation de combinaisons de soumissions pour identifier la combinaison ayant le coût total le plus bas) est, en général, conforme aux approches utilisées par d'autres entreprises de service public d'électricité.

  - L'utilisation du critère monétaire comme critère final quant au choix des soumissions retenues représente l'approche la plus objective et est conforme aux tendances récentes observées dans l'industrie.

  - Tous les soumissionnaires ont eu accès à la même information et ce, aussi bien lors de la tenue de la conférence préparatoire, que lors de la transmission des réponses aux questions des soumissionnaires ou du document d'appel d'offres et de ses addenda.

  - Hydro-Québec Distribution a utilisé des modèles appropriés et des hypothèses uniformes pour les étapes 2 et 3 de l'évaluation, incluant un modèle (utilisé dans l'industrie) pour

réaliser l'étape 3 (i.e. le modèle de simulation des combinaisons de soumissions sélectionnées). Le représentant officiel a revu les résultats d'analyse des étapes 2 et 3.

- Hydro-Québec Distribution a inclus tous les coûts directs ainsi que les coûts de transport et des options associés à chacune des soumissions ou des combinaisons de soumissions. Par conséquent, tous les coûts raisonnables ont été pris en compte dans l'évaluation.

- Hydro-Québec Distribution a mis sur pied un processus de documentation détaillé afin de supporter les décisions relatives à l'évaluation et à la sélection et ce, aussi bien pour les critères non-monétaires que monétaire.

- En général, le processus d'évaluation et de sélection utilisé par Hydro-Québec Distribution a été uniforme, non-biaisé, équitable et intégré.

Rencontres avec les soumissionnaires

- Commentaires relatifs aux rencontres avec les soumissionnaires :

  - Au cours de la période du 17 juin au 4 octobre 2002, des conférences téléphoniques et des rencontres ont eu lieu avec certains soumissionnaires:

    - Lors des conversations téléphoniques, un représentant de Samson Bélair/Deloitte & Touche a été présent afin de s'assurer de la rigueur et de l'équité du processus; et,

    - Lors des rencontres individuelles, qui avaient pour objectif d'obtenir des précisions sur certains aspects de leur soumission, un représentant de Samson Bélair/Deloitte & Touche a été présent afin de s'assurer de la rigueur et de l'équité du processus. Dans tous les cas, la convocation a été effectuée par écrit et une liste des aspects à discuter a été communiquée au soumissionnaire préalablement à la rencontre.

Liste des soumissions retenues

- Commentaires relatifs à la liste des soumissions retenues :

  - Après l'analyse des combinaisons de soumissions, Hydro-Québec Distribution a établi la liste des soumissions retenues, celles-ci étant incluses dans la combinaison dont le prix total était le plus faible. Par la suite, Hydro-Québec Distribution a émis un avis d'acceptation à chacun des soumissionnaires retenus, cet avis incluant la liste des exigences préalablement identifiées devant être satisfaites par le soumissionnaire avant la signature du contrat. Il s'agit de :

    - Groupe Axor Inc./Calpine Canada Power Corporation - Projet "Varennes Energy Center" – 550 MW de livraisons en base; et 50 MW de livraisons cyclables.

      Cet avis a été envoyé en date du 1er octobre par Hydro-Québec Distribution via Samson Bélair/Deloitte & Touche et contresigné par Groupe Axor Inc./Calpine Canada Power Corporation en date du 2 octobre 2002, soit avant l'échéance fixée au 3 octobre à midi.

L'échéance pour la conclusion d'un contrat a aussi été spécifiée dans cet avis, à savoir le 10 décembre 2002.

- Hydro-Québec Production - Projet "LG-2" – 350 MW de livraisons en base.

  Cet avis a été envoyé en date du 1er octobre par Hydro-Québec Distribution via Samson Bélair/Deloitte & Touche et contresigné par Hydro-Québec Production en date du 2 octobre 2002, soit avant l'échéance fixée au 3 octobre à midi. L'échéance pour la conclusion d'un contrat a aussi été spécifiée dans cet avis, à savoir le 10 décembre 2002.

- Hydro-Québec Production - Projet "LG-1" – 250 MW de livraisons cyclables.

  Cet avis a été envoyé en date du 1er octobre par Hydro-Québec Distribution via Samson Bélair/Deloitte & Touche et contresigné par Hydro-Québec Production en date du 2 octobre 2002, soit avant l'échéance fixée au 3 octobre à midi. L'échéance pour la conclusion d'un contrat a aussi été spécifiée dans cet avis, à savoir le 10 décembre 2002.

- Une liste de soumission de relève a également été constituée dans l'éventualité où les négociations avec les soumissionnaires retenus achopperaient à l'étape de préparation des contrats. Hydro-Québec Distribution a émis un avis au soumissionnaire mis en relève, cet avis incluant, lorsque requis, des exigences additionnelles devant être satisfaites par le soumissionnaire mis en relève. Il s'agit de :

  - TransCanada Energy Limited - Projet "TCE Bécancour Cogeneration Project" – 507 MW de livraisons en base.

    Cet avis a été envoyé en date du 3 octobre par Hydro-Québec Distribution via Samson Bélair/Deloitte & Touche et contresigné par TransCanada Energy Limited en date du 7 octobre 2002, soit avant l'échéance fixée au 9 octobre à midi.

- Hydro-Québec Distribution a également avisé par écrit, via Samson Bélair/Deloitte & Touche, à partir d'un avis de rejet, les neuf (9) soumissionnaires non retenus (correspondant à 13 soumissions) en date du 4 octobre 2002. Aucun avis n'a été émis pour l'une des deux (2) soumissions en base d'Hydro-Québec Production étant donné qu'Hydro-Québec Production avait indiqué que ses deux (2) soumissions en base étaient mutuellement exclusives.

Annonce des soumissions retenues

- Commentaires relatifs à l'annonce des soumissions retenues :

  - Le 4 octobre 2002, un communiqué de presse émis par Hydro-Québec Distribution a fait état du choix des soumissionnaires retenus. Ce communiqué a été publié sur le site Internet d'Hydro-Québec Distribution.

Conclusion

- Les pratiques actuelles d'Hydro-Québec Distribution respectent les exigences de la Procédure d'appel d'offres.

Phase 4 : De la sélection des soumissions retenues jusqu'à la préparation des contrats

Introduction

- Dans le cadre de cette étape, Samson Bélair/Deloitte & Touche n'avait pas à se prononcer sur la conformité des contrats signés par rapport au contrat-type inclus dans le document d'appel d'offres.

- Au cours de la période de préparation des contrats, soit entre le 7 octobre 2002 et le 10 juin 2003, il a été entendu que les documents à être envoyés par Hydro-Québec Distribution aux soumissionnaires retenus pour fins de préparation des contrats, leur seraient envoyés directement avec une copie transmise à Samson Bélair/Deloitte & Touche.

Contrats d'approvisionnement en électricité (2 contrats) – Hydro-Québec Production

Livraisons en base : 350 MW (Projet "LG-2")
Livraisons cyclables : 250 MW (Projet "LG-1")

- Commentaires relatifs au processus de préparation des contrats

  - La préparation des deux (2) contrats (i.e. livraisons en base et cyclables) s'est effectuée de façon simultanée par une seule équipe d'Hydro-Québec Production et une seule équipe d'Hydro-Québec Distribution.

  - Dans un premier temps, Hydro-Québec Distribution a fait parvenir, par courriel à Hydro-Québec Production, un projet de contrat, avec copie acheminée à Samson Bélair/Deloitte & Touche.

  - Au cours de la période du 7 octobre 2002 au 10 décembre 2002, des réunions et des conférences téléphoniques ont eu lieu avec Hydro-Québec Production et Hydro-Québec Distribution pour fins de préparation du contrat:

    - En général, avant chacune de ces rencontres, une version du projet de contrat, révisée en fonction des discussions de la rencontre précédente, a été préalablement transmise par courriel par Hydro-Québec Distribution à Hydro-Québec Production avec copie à Samson Bélair/Deloitte & Touche. À chacune de ces rencontres, un représentant de Samson Bélair/Deloitte & Touche a été présent à titre d'observateur de la rigueur, de l'impartialité et de l'équité du processus.

    - Des conférences téléphoniques ont été tenues de façon à poursuivre la discussion sur certains aspects du contrat. À ces occasions, un représentant de Samson Bélair/Deloitte & Touche a été présent à titre d'observateur de la rigueur, de l'impartialité et de l'équité du processus.

  - Tel qu'entendu dans l'avis d'acceptation envoyé par Hydro-Québec Distribution en date du 1er octobre 2002 via Samson Bélair/Deloitte & Touche et contresigné par Hydro-Québec Production en date du 2 octobre 2002, l'échéancier pour la conclusion des deux (2) contrats, à savoir le 10 décembre 2002, a été respecté.

Non-conclusion d'un contrat avec Calpine /Axor
Livraisons en base : 550 MW; Livraisons cyclables : 50 MW
"Projet Centre d'énergie de Varennes"

- Commentaires relatifs à la liste des soumissions retenues
  - Dans un premier temps, Hydro-Québec Distribution a fait parvenir, par courriel à Groupe Calpine Canada Power Corporation /Axor Inc. (Calpine/Axor), un projet de contrat, avec copie acheminée à Samson Bélair/Deloitte & Touche.
  - Au cours de la période du 7 octobre 2002 au 12 décembre 2002, des réunions et des conférences téléphoniques ont eu lieu avec Calpine/Axor et Hydro-Québec Distribution pour fins de préparation du contrat:
    - En général, avant chacune de ces rencontres, une version du projet de contrat, révisée en fonction des discussions de la rencontre précédente, était préalablement transmise par courriel par Hydro-Québec Distribution à Calpine/Axor avec copie à Samson Bélair/Deloitte & Touche. À chacune de ces rencontres, un représentant de Samson Bélair/Deloitte & Touche a été présent à titre d'observateur de la rigueur, de l'impartialité et de l'équité du processus.
    - Des conférences téléphoniques ont été tenues de façon à poursuivre la discussion sur certains aspects du contrat pour mettre fin aux discussions. À ces occasions, un représentant de Samson Bélair/Deloitte & Touche a été présent à titre d'observateur de la rigueur, de l'impartialité et de l'équité du processus.
  - Dans l'avis d'acceptation envoyé par Hydro-Québec Distribution en date du 1er octobre 2002 via Samson Bélair/Deloitte & Touche et contresigné par Calpine/Axor en date du 2 octobre 2002, il était indiqué que l'échéancier pour la conclusion du contrat était le 10 décembre 2002. À cette échéance, les parties ont constaté qu'elles ne pouvaient s'entendre sur un ensemble d'éléments essentiels d'un contrat à intervenir. En conséquence, l'avis d'acceptation de la soumission de Calpine/Axor daté du 1er octobre 2002 devenait nul et non avenu.

Contrat d'approvisionnement en électricité – TransCanada Energy

Livraisons en base : 507 MW
"Projet de cogénération de Bécancour"

- Commentaires relatifs aux rencontres avec les soumissionnaires

  - Les 12 et 13 décembre 2002, des conférences téléphoniques ont été tenues entre TransCanada Energy Limited (TCE), et Hydro-Québec Distribution, en présence de Samson Bélair/Deloitte & Touche afin d'informer TCE que sa soumission était désormais retenue pour fins de discussions contractuelles; et pour fixer la date limite d'une entente contractuelle avant le 6 février 2003.

  - Le 16 décembre (soit avant la date limite du 17 décembre à 16h00), TCE a fait parvenir par télécopieur l'avis d'acceptation contresigné permettant d'entreprendre les discussions visant à conclure un contrat pour le 6 février 2003 au plus tard.

  - Par la suite, Hydro-Québec Distribution a fait parvenir, par courriel à TCE un projet de contrat, avec copie acheminée à Samson Bélair/Deloitte & Touche.

  - Au cours de la période du 7 janvier 2003 au 10 juin 2003, des réunions et des conférences téléphoniques ont eu lieu avec TCE et Hydro-Québec Distribution pour fins de préparation du contrat:

    - En général, avant chacune de ces rencontres, une version du projet de contrat, révisée en fonction des discussions de la rencontre précédente, était préalablement transmise par courriel par Hydro-Québec Distribution à TCE avec copie à Samson Bélair/Deloitte & Touche. À chacune de ces rencontres, un représentant de Samson Bélair/Deloitte & Touche a été présent à titre d'observateur de la rigueur, de l'impartialité et de l'équité du processus.

    - Des conférences téléphoniques ont été tenues de façon à poursuivre la discussion sur certains aspects du contrat. À ces occasions, un représentant de Samson Bélair/Deloitte & Touche a été présent à titre d'observateur de la rigueur, de l'impartialité et de l'équité du processus.

  - Tel qu'entendu dans l'avis d'acceptation envoyé par Hydro-Québec Distribution en date du 13 décembre 2002 via Samson Bélair/Deloitte & Touche et contresigné par TransCanada Energy en date du 16 décembre 2002, l'échéancier pour la conclusion d'une entente sur les termes d'un projet de contrat, à savoir le 6 février 2003, a été respecté. En effet, un avis d'entente a été contresigné par les représentants officiels des deux (2) parties en date du 7 février 2003. Cet avis stipulait que le projet de contrat est sujet à une révision du texte final par les parties et à l'approbation du conseil d'administration de TransCanada PipeLines Limited et du président d'Hydro-Québec Distribution, le contrat devant être signé par les deux (2) parties au plus tard le 24 mars 2003.

- D'autre part, étant donné l'incertitude relative aux politiques environnementales en matière de traitement des gaz à effet de serre au Québec, TransCanada Energy a demandé à trois (3) reprises à Hydro-Québec Distribution de reporter la date de signature du contrat, ce à quoi Hydro-Québec Distribution a acquiescé.

- En date du 10 juin 2003, le contrat d'approvisionnement en électricité a été signé par les représentants officiels autorisés de TransCanada Energy et d'Hydro-Québec Distribution.

Conclusion

- À notre connaissance, tous les soumissionnaires retenus ont été traités sur le même pied d'égalité tout au long du processus de préparation des contrats et les informations échangées entre Hydro-Québec Distribution et les soumissionnaires ont été traitées de façon confidentielle.

- Les pratiques actuelles d'Hydro-Québec Distribution respectent les exigences de la Procédure d'appel d'offres.

Annexe A

Comments on the Call for Tenders Issuance

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Comments on the Call for Tenders Issuance

Hydro-Québec Distribution retained Samson Bélair/Deloitte & Touche (SB/D&T) to be the Official Representative for the Call for Tenders process. One of the tasks associated with this assignment is to review and comment on the Call for Tenders documents and the process and procedures leading up to the issuance of the Call for Tenders on February 21, 2002. Thus, this report will only focus on pre-issuance activities associated with the launch of the Call for Tenders and will address the following issue:

- The consistency of the Call for Tenders documents with industry standards and with the Contract Award Procedures approved by the Regie.

Consistency of the Call for Tenders With Industry Standards and Contract Award Procedures

The Official Representative had several opportunities to provide comments on the Call for Tenders documents prior to launch of the Call for Tenders on February 21, 2002. In particular, the Official Representative had the opportunity to comment on the Call For Tenders, Electricity Supply Contract and Bid From, including both French and English versions. This review focused on: (1) content of the documents; (2) clarity, consistency and equity of the documents; and (3) editorial and wording changes.

It is important to note that a Call for Tenders process of this nature is an iterative process, in which changes to one document can affect other documents. For example, a change in the Electricity Supply Contract can flow through to the Call For Tenders and Bid Form. To ensure consistency, changes have to be made to all documents. The review and evaluation addressed the integration of the documents to ensure consistency.

Hydro-Québec Distribution was responsive to any comments identified by the Official Representative and either reflected the comments in the documents or provided a justifiable explanation for not including comments or suggestions. As a result, the Official Representative concludes that the documents adequately reflect the changes recommended.

The focus of this review is to evaluate the Call for Tenders documents relative to the requirements outlined in the Call for Tenders and Contract Award Procedure document ("Procedure") and to current industry trends and industry guidelines associated with effective call for tenders or competitive bidding or procurement processes for power supplies. The first section of this evaluation will identify recent major industry trends regarding competitive bidding or procurement processes and discuss Hydro-Québec Distribution's Call for Tenders approach relative to these trends. The second section will assess whether or not the bid documents are consistent with the requirements outlined in the Procedure. The third section addresses the Call for Tenders documents and approach relative to industry guidelines pertaining to effective competitive procurement processes.

Annexe A

Comments on the Call for Tenders Issuance

1. Industry Trends Regarding Competitive Procurement

Competitive bidding or procurement as a means of soliciting and procuring electric supply resources by utilities has been utilized effectively since the late 1980s. The bidding process and methodologies have evolved over time. Competitive bidding processes allow utilities to evaluate and select projects based on an equivalent set of information, placing all projects on a comparable basis. Competitive bidding encourages competition and more mature projects. Several of the recent trends which have become standards for competitive bidding approaches and processes include:

a. Integrated evaluation systems have largely replaced self-scoring systems. This has allowed the utility to more effectively optimize its resource plan by comparing the cost of a resource against other alternatives based on total system cost analysis.

b. As the industry has matured, price or monetary criteria have become the predominant selection criteria. Non-monetary criteria are used to ensure projects are feasible and viable.

c. Utilities are now seeking more flexibility in making resource commitments.

d. The Request For Proposals or Call For Tenders documentation usually integrates the Call for Tenders with the Electricity Supply Contract and Bid Form or Response Package.

e. Bidding processes are generally designed to encourage a broader range of projects rather than limit resource options.

Hydro-Québec Distribution's Call for Tenders document and the procedures identified in the Document are consistent overall with current industry standards and trends. Hydro-Québec Distribution has proposed an integrated evaluation system approach (rather than "self-scoring") in which the system costs associated with a proposal or portfolio of proposals are thoroughly evaluated. With different types of resources eligible and different types of products requested, the integrated evaluation process allows the opportunity to develop the lowest cost portfolio of resources based on total system costs. As will be discussed later, the approach proposed by Hydro-Québec Distribution to group and compare proposals within each category in Step 2 of the evaluation process ensures that the best proposals in each category are evaluated in Step 3 of the evaluation process to ensure that all types of proposed options are considered in the final portfolio. Thus, there is no bias against a specific option in the early stages of the evaluation.

Hydro-Québec Distribution's Call for Tenders process is consistent with industry standards in the application of monetary criteria as the final selection criteria. While non-

monetary criteria are utilized in Step 2 to select the best proposals in each category, the selection of proposals for inclusion in the final portfolio is based on monetary criteria.

Based on market uncertainty, utilities are seeking more flexibility in the procurement process. Hydro-Québec Distribution is seeking flexibility in its Call for Tenders process by requesting bidders to offer both acceleration (advancement of the commencement date of deliveries) and deferral (up to three successive options to defer by one year) options. Similar to other bidding processes, Hydro-Québec Distribution intends to take account of the costs of deferring the in-service date of a project in its evaluation process based on the bids received. Other utilities have used option pricing techniques to quantify the impacts of deferring the in-service date of a project.

Hydro-Québec Distribution has provided the Call for Tenders document, the Bid Form and the Standard Contract in the Call for Tenders. The Call for Tenders document describes the objectives of the Call for Tenders, requirements of Hydro-Québec Distribution, the schedule or timetable, instructions and guidelines for bidders, evaluation process, and threshold and evaluation criteria. The Bid Form includes a list of the information required of bidders for both price and non-price categories and contains copies of the forms which must be completed by bidders. The Bid Form is linked to the evaluation criteria/process and is designed to ensure that a consistent base of information is provided by all bidders. The Standard Contract is designed for baseload deliveries but is linked to the Call for Tenders document and identifies the contract provisions of importance to Hydro-Québec Distribution.

Inclusion of all these documents in the Call for Tenders allows bidders to reflect all the risks of the project in their bid price. In some past competitive bidding processes, the utility failed to include the Standard Contract with the Call for Tenders or Request for Proposals (RFP) document. In this case a bidder would submit a proposal without having full knowledge of the contract risk. In some cases, contract negotiations broke down because the price bid did not accurately reflect all the risk to the bidder.

Finally, competitive bidding or procurement processes have recently been designed to allow all types of projects/bids to compete, including unit contracts, firm energy proposals from marketers, and renewable resource bids. Simple evaluation processes increase the difficulty of accurately evaluating the different types of proposals against one another. Other utilities have undertaken the approach adopted by Hydro-Québec Distribution to categorize or cluster similar bids and initially evaluate bids against one another within the defined category. The final evaluation can therefore be simplified somewhat by comparing the best bids from each category in the detailed evaluation stage. This is an effective process for ensuring that all types of proposals are included in the final evaluation and unique proposals can be evaluated within a portfolio of options.

One issue with the categorization process identified by Hydro-Québec Distribution is that the Call for Tenders identifies the two categories as baseload and hourly dispatchable

deliveries only. However, depending on the type of resources or technologies bid, Hydro-Québec Distribution may have to broaden the categories selected. For example, it is difficult to directly compare a baseload gas option against a wind project. Separate categories may be required if a number of wind projects are proposed.

Thus, it is clear that Hydro-Québec Distribution's Call for Tenders is very consistent with industry trends and standards and represents a creative solution for encouraging a range of resource options to enhance competition.

2. Consistency With the Contract Award Procedures

Page 2 of the Contract Award Procedures document identifies a number of requirements associated with the bid document. These include:

- The bid document should contain all the information required for potential suppliers to submit a bid
  - Statement as to the purpose of the Call for Tenders
  - Description of the products sought
  - Amount of capacity and energy
  - Delivery period
  - Instructions to bidders
  - Process schedule
  - Bid analysis grid
  - Requirements to be met
  - Bid Forms
  - Copy of the proposed standard contract

- The analysis grid contains a description of the criteria that will be taken into account when analyzing bids
  - Monetary criteria
  - Criteria having an effect on the risks taken on by the Distributor
  - Specifies the weighting to be applied to each criteria
  - Minimum requirements applicable to certain criteria

- Responsibilities of the Distributor include
  - Selection of the criteria
  - Weighting of the analysis grid
  - Criteria evaluation methods
  - Ensures the content of the grid is in keeping with the supply plan

Based on review of the requirements identified in the Contract Award Procedures, it is obvious that Hydro-Québec Distribution has met the objectives associated with the bid document in the Procedures. A review of the required information and a description of

the approach used by Hydro-Québec Distribution and section reference in the Call for Tenders document is included as Attachment 1.

In addition, Hydro-Québec Distribution has selected the criteria used to evaluate bids, the weights and evaluation methods consistent with its objectives and the unique nature of its system. All competitive bidding processes contain unique evaluation criteria and weights based on the characteristics of the utility system and its unique preferences. While Hydro-Québec Distribution's overall approach, the criteria selected, and weights are consistent with industry practices, the selection of criteria and weights have to reflect the nuances of the Hydro-Québec Distribution system.

3. Consistency With Industry Guidelines/Practices

In assessing the Call for Tenders Documents from an industry standards perspective there are several general industry guidelines or objectives which the documents should be designed to achieve. These include:

a. **The documentation should describe the bidding guidelines, the requirements of the bidder for preparing and submitting their proposals and the bid evaluation and selection criteria**.

Hydro-Québec Distribution's Call for Tenders has clearly met this criteria by thoroughly and clearly describing the schedule or timetable for the process, requirements which bidders must meet to be eligible, the evaluation and selection process, the amount and type of resources required, the contract term, the list of information required of each bidder, and the information associated with submission of the proposal.

b. The process should be equitable, fair and unbiased to all bidders

The requirements of this Call for Tenders process are fair and equitable to all bidders in that all bidders are provided the same level of information and one type of bidder is not given an undue preference. In our view, there are two biases in the process: (1) a slight bias toward smaller projects, and (2) a bias toward projects located within the province of Québec. Smaller projects are viewed by Hydro-Québec Distribution to be less risky from a financial risk perspective and therefore are weighted more highly than larger projects. Smaller projects (less than 150 MW) also incur lower bid fees. Hydro-Québec Distribution has justified such a bias by indicating a preference for multiple contracts and to encourage a range of resource types/options to enhance competition.

Hydro-Québec Distribution has indicated that any outside resource will have to demonstrate that the electricity will be delivered through

interconnection points on the TransEnergie system not identified in the Call for Tenders. Outside resources will have little opportunity to compete due the cost and difficulty of transferring power into Québec. Hydro-Québec Distribution has justified this approach by stating a preference for internal resources for reliability purposes. Certainly, location of a project within Québec, controlled through a contract will be more reliable than an outside resource from a physical power perspective.

c. The process should allow bidders to incorporate all risks/rewards in their bid

As noted above, the integration of the Call For Tenders, Standard Contract, and Bid Form ensures that bidders can effectively reflect business and legal risks in their bid price. Furthermore, all bidders have access to the same information, and have the opportunity to seek clarification for any questions they may have. In our view, including all three documents plus other information about interconnection points and preferred areas with the Hydro-Québec system for locating a project allows bidders to effectively address all reasonable risks in developing their proposal.

d. The solicitation documents/process should incorporate the unique aspects of the utility system

A standard characteristic of any Call for Tenders or competitive bidding processes is that the bid documents should reflect the unique characteristics of the utility system. Therefore, no two bid documents, threshold and evaluation criteria, and weightings are ever the same. While there may be general criteria used or trends in weightings, utilities usually have unique requirements. Hydro-Québec Distribution has obviously reflected the unique aspects of its supply plan, transmission system and criteria of importance in designing its Call for Tenders.

Annexe A

Comments on the Call for Tenders Issuance

Attachment 1
Contract Award Procedures
Bid Document Requirements

Bid Document Information Requirements	Description	Document Reference
• Statement as to the Purpose of the Call for Tenders	The Call for Tenders is being issued by Hydro-Québec Distribution for the purchase of firm capacity and associated energy to meet the long-term electricity needs of its Québec customers.	Section 1.1 of Call for Tenders Document.
• Description of the Products Sought	Hydro-Québec Distribution is seeking baseload and hourly dispatchable deliveries. The products requested are thoroughly described in the Call for Tenders document.	Section 2.1 of Call for Tenders Document.
• Amount of Capacity and Energy Sought.	The amount requested is identified as 600 MW of capacity and associated energy including 400 MW of baseload deliveries and 200 MW of hourly dispatchable deliveries.	References are included in several sections: Section 2.2, 2.3, 1.1, and 2.1.
• Delivery Period	Deliveries shall start on March 1, 2007. However, Hydro-Québec Distribution requests the opportunity to advance or defer the start of delivery. The duration of the contract may not be less than 15 years or more than 20. Twenty-five year contracts are available if the facilities proposed have an estimated useful life of 30 years.	Sections 2.3, 2.4, and 1.1.
• Instructions to Bidders	Hydro-Québec Distribution devotes a complete Chapter of the Call for Tenders to providing detailed instructions to bidders on such issues as how to submit a bid, eligibility, registration for bid submission, communications with bidders, and directions.	Chapter 4 of Call for Tenders document.

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Bid Document Information Requirements	Description	Document Reference
• Process Schedule	Timetable for the Call for Tenders process from pre-bid conference to execution of the contracts is included.	Section 1.4.
• Bid Analysis Grid	Hydro-Québec Distribution provides a grid which identifies the monetary and non-monetary criteria and the weightings attached to the major monetary and non-monetary categories. For each of the non-monetary categories, Hydro-Québec also identifies and thoroughly describes the relevant criteria within the major categories, the minimum requirements applicable to certain criteria, and identifies the factors of importance to Hydro-Québec Distribution.	Chapter 3 of the Call for Tenders contains detailed information on each criteria in the selection process.
• Bid Form	Hydro-Québec Distribution provides a very thorough Bid Form in the Call for Tenders Document which identifies and describes the information required from bidders by type of information. The information requested conforms to the evaluation criteria.	Tab 11 of the Document.
• Copy of the Proposed Standard Contract	Hydro-Québec Distribution has provided a copy of its Standard Contract for Baseload deliveries in the Call for Tenders document. The contract is consistent with industry standards and is integrated with the Call for Tenders document.	Tab 10 of the Document.

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Assessment of the Adequacy of Tools To Be Used in the Evaluation of Bids

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Assessment of the Adequacy of Tools To Be Used in the Evaluation of Bids

The purpose of this report is to comment on the approach proposed by Hydro-Québec Distribution to evaluate the bids received in response to the Call for Tenders process and to assess the tools and methodologies used by Hydro-Québec Distribution to undertake the monetary evaluation of bids submitted. The methodologies proposed by Hydro-Québec Distribution for each stage of the evaluation process were discussed with Hydro-Québec Distribution's Official Representative in June 2002, prior to receipt of bids. Additionally, this assessment reflects discussions with Hydro-Québec Distribution staff involved in the monetary evaluation process.

The methodologies used by utilities to evaluate proposals have changed over time and reflect a variety of approaches and tools for undertaking such an analysis. In a Call for Tenders or competitive bidding framework, the use of such methodologies and tools is based largely on the expected number of bids, length of time allotted for the evaluation process, the type of proposals sought, and the expected impacts on system costs. This report will describe and assess the bid evaluation process and the quantitative methodologies proposed by Hydro-Québec Distribution to undertake the monetary or price analysis of the bid evaluation process. In addition, we will discuss the tools to be used by Hydro-Québec Distribution to conduct the analysis and the consistency of the tools and methodologies with industry standards.

A. Background

Hydro-Québec Distribution is required to contract for power supplies to meet Québec market needs beyond the amount of energy provided by the Heritage Pool Electricity. Hydro-Québec Distribution is required to issue Call for Tenders to potential suppliers who could possibly meet such resource needs. Hydro-Québec Distribution is expected to rely on the Heritage Pool Electricity with Hydro-Québec Production for 165 TWH per year. Power supply requirements beyond this level must therefore be acquired through a Call for Tenders process.

As prescribed in the Act respecting the *Régie de l'énergie*, the Call for Tenders procedure must meet the following requirements:

1. Allow for the participation of all interested suppliers

2. Grant equal treatment to all sources of supply

3. Favor the awarding of supply contracts on the basis of the lowest price for the conditions and amount of power required, taking into account the applicable cost of transmission

4. Allow for more than one contract to meet the need identified by the Distributor.

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It is expected based on the October 2001 Procurement Plan that additional power supplies will be required beyond the Heritage Pool Electricity volumes beginning in the 2006-2007 timeframe. However, Hydro-Québec Distribution's Procurement Plan has illustrated a wide range of potential power requirements depending on economic and weather scenarios. The Procurement Plan illustrates a range of 0 to 3,040 MWs of additional generation requirements by 2007, with the first year of resource needs ranging from a start year of 2003 to an initial year of need after 2011, depending on the outcome of each of the scenarios analyzed.

Due to expected load growth in combination with the expected utilization and flexibility of the Heritage Pool Electricity, Hydro-Québec Distribution has identified a need for 1,200 MW, comprised of 900 MW of baseload power and 300 MW of hourly dispatchable deliveries. These amounts serve as the basis for the power solicited through this Call For Tenders. Hydro-Québec Distribution may increase or decrease the requested quantities until the time contracts are awarded to meet its forecasted load.

Hydro-Québec Distribution's analysis has indicated that hourly dispatchable power will operate at a 50% capacity factor while baseload proposals will operate at high capacity factors, limited only by the proposed availability or delivery performance factor of the individual proposal.

In the Call for Tenders, bidders are allowed to bid any generation technology and are required to submit pricing formulas in their proposals for capacity and energy-related cost components, along with allowable indices for each pricing component. The pricing formulas must reflect the requirements outlined in the Call for Tenders, with price indices for different elements limited to the price indices originally included in the Call for Tenders or indices acceptable to Hydro-Québec Distribution based on requests from bidders. The pricing formulas, in conjunction with forecasts of the underlying indices determine the projected costs of the project. Hydro-Québec Distribution will also include transmission-related costs in the monetary evaluation of each proposal, as well as other costs. The transmission-related cost estimates will be prepared by TransEnergie for each bid.

Based on the requirements of the Call for Tenders, bidders could propose contract terms of not less than 15 years or more than 20 years, unless the bidder can demonstrate the project has a useful life of at least 30 years. In this case, a bidder could propose a 25-year contract term. Bidders are required to guarantee a commencement date for deliveries of March 1, 2007.

The uncertainty associated with the load forecast and the need for power has also led Hydro-Québec Distribution to request bidders to offer both advancement (acceleration) and deferral provisions. The bidder is invited to include in its bid up to three successive options to defer by one year the guaranteed commencement date of delivery.

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Both advancement and deferral provisions are effectively options, which allow Hydro-Québec Distribution to accelerate or defer the commencement date of the power contract. Bidders are required in the Call for Tenders to bid a price or option premium for the right to defer or accelerate the commencement date as well as strike dates at which the option has to be exercised or allowed to expire. Also in Step 3 of the evaluation, Hydro-Québec Distribution will include the value of the options proposed by bidders in its assessment.

As a result, Hydro-Québec Distribution has to develop the methodologies, processes and tools necessary to compare and evaluate proposals consistent with the provisions and requirements of the Call for Tenders, the information requested of the bidders, and the evaluation process selected.

While competitive resource analysis can be conducted using traditional resource planning tools (i.e. busbar cost analysis, generation expansion, or production cost analysis), the choice of the appropriate methodologies and tools should be consistent with the unique characteristics of the utility system and resource procurement requirements. The choice of sophisticated tools and methodologies, such as option pricing models and portfolio optimization models, has to be assessed in conjunction with the needs of the utility and its unique system characteristics.

Therefore, the choice of the methodologies to use should reflect a number of factors including:

1. The type of proposals solicited
2. The pricing components analyzed
3. The required complexity of the evaluation process
4. The timeframe for completing the analysis

As noted, Hydro-Québec Distribution is requesting bids for both baseload and dispatchable deliveries. Given the presence of the Heritage Pool Electricity, the 1,200 MW capacity block is well defined in the Call for Tenders and bidders are required to submit proposals for either separate baseload or dispatchable deliveries or combined bids for both products.

The timeframe for completing the analysis of bids received has been estimated to be approximately three months, with the intent of executing contracts by December 2002.

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B. Proposed Evaluation Process

Hydro-Québec Distribution proposed in the application of the Call for Tenders and Contract Award Procedure approved by the *Régie de l'énergie* to use a three step evaluation process. Each of the steps in the evaluation process is described below:

Step 1 is the evaluation of bids in compliance with the minimum requirements. The Minimum (or threshold) Requirements include the following five criteria:

1. Choice of a Site
2. Financial Security
3. Bidders Experience
4. Technological Maturity
5. Adequate Power Plant Interconnection Timeframe

This phase involves no direct monetary requirements, and therefore is not addressed in detail in this assessment.

The minimum requirements included in the Call for Tenders are basic and should not, in themselves, discourage bidders from submitting a proposal. Furthermore, the minimum requirements do not contain apparent biases toward any type of project and bidder.

Step 2 involves the grouping and evaluation of bids by category (i.e. baseload deliveries and hourly dispatchable deliveries). This step includes both monetary and non-monetary evaluation criteria. Monetary criteria (i.e. cost of electricity) account for 60% of the potential score for each project and non-monetary for 40%.

In addition to price, there are four non-monetary criteria. The Call for Tenders document includes a grid that outlines the individual evaluation criteria. Essentially, the non-monetary criteria focus on the financial strength of the bidder, its relevant experience in successfully developing similar projects, the feasibility or viability of the proposed project and the flexibility offered by the bidder as key elements in the evaluation process.

In this stage of the evaluation, Hydro-Québec Distribution has attempted to design the evaluation process for the selected criteria to be objective, if possible. For example, the flexibility and financial strength criteria have been designed to allow for a quantitative, objective analysis of each bid. For the more subjective criteria (i.e. Relevant Experience, Supply Plan for Fuel and Make-up Energy), Hydro-Québec Distribution plans to rely upon detailed information as the basis for the evaluation and the scoring of bids relative to each criteria.

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Hydro-Québec Distribution proposes to categorize bids separately as baseload and dispatchable. For this stage of the evaluation, baseload proposals will compete against one another and dispatchable proposals will also compete with one another. The combination of monetary and non-monetary factors will be used to rank each proposal by category.

In this phase of the evaluation, the cost of electricity will take into account the following elements:

1. The price of capacity and the indexing formulas proposed for each component
2. The price of energy and the indexing formulas proposed for each component
3. The bid capacity offered and the associated energy
4. Term of the contract
5. The applicable transmission costs, which include the cost of the step-up substation of the power plant, the interconnection costs, the system reinforcement costs and the electrical loss rate
6. Any additional costs that are part of the pricing formula proposed by the bidder based on the requirements outlined in the Call for Tenders.

Prior to receipt of the bids, Hydro-Québec Distribution developed a forecast of all acceptable economic and price indices. Hydro-Québec Distribution has largely relied upon a consistent and comprehensive price forecast for each index.

One issue that arose during the process of preparing the forecast of the indices was the development of a gas price forecast. In particular, the uncertainty in the gas market has led to a disparity in the range of gas price forecasts prepared by individual forecasting firms. Hydro-Québec Distribution secured three forecasts of Henry Hub and AECO prices (primary pricing points in the US and Canada), averaged the three forecasts to avoid the potential implications associated with use of an outlier forecast, and added forecasts of basis differentials to derive a forecast of gas prices into the Québec market.

For this phase of the evaluation, all of the bids will be compared based on their discounted unit costs. Hydro-Québec Distribution proposes to use a real levelized cost analysis based on the quantities and cost of electricity proposed discounted to the reference year, 2007. For baseload deliveries, Hydro-Québec will rely upon the proposed contract delivery performance factor as the basis for the quantity of energy delivered. For hourly dispatchable deliveries, a 50% capacity factor is assumed as the basis for calculating a $/MWh reference price. The associated transmission costs for each bid will be estimated by TransEnergie based on the location of the proposed project. Costs provided by TransEnergie will be converted into real levelized costs based on TransEnergie's discount rate.

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Real levelized cost analysis allows the analyst to estimate a base year price, which, when escalated by inflation, provides the same Net Present Value Dollar stream as the proposals actual discounted cost stream. This methodology allows for comparison of proposals based on a single initial year base price (i.e. $/MWh in 2007), and therefore allows for a consistent evaluation of bids with different terms and starting periods. Hydro-Québec Distribution proposes to allocate points among projects in each category by ranking the proposals and awarding 60 points to the lowest cost project. Subsequent projects will be awarded points based on their percentage relationship to the lowest cost project (i.e. 60 points divided by the price of a specific project relative to the price of the lowest cost project).

In this step of the evaluation process, Hydro-Québec Distribution proposes to model each bid independently, even if a bid contains a conditional or linked proposal (i.e. a bid contains a baseload and dispatchable component). Hydro-Québec Distribution also proposes to share transmission costs between the two components for evaluation purposes.

The result of the Step 2 evaluation will be a ranking of proposals based on a combination of monetary and non-monetary factors. Such a methodology will assist Hydro-Québec Distribution in establishing a priority list of bid combinations for purposes of identifying those bids which will initially be subject to the Stage 3 bid portfolio or combination process.

Step 3 of the evaluation process focuses on a simulation of bid combinations to determine the combination of bids which results in the lowest total cost. Lowest total cost includes the bid price formula, the impact of transmission costs, and the value of the options. In the analysis of bids, all combinations are compared based on an equivalent level of service for assessment purposes (i.e. capacity equivalent to 1,200 MW and the energy required in the average scenario of 8.4 TWh). A reference generating source for each type of resource will be established to balance the energy in the portfolio. The reference generating source will be based on the cost of the bids evaluated and ranked in Step 2.

In simulating the operation of each resource portfolio, the various constraints associated with each bid that limit its operating flexibility are taken into account. Hydro-Québec Distribution requires bidders to specify their operating parameters in the Bid Form. The various deferral and advanced commencement options are also considered in this stage of the evaluation. The total cost associated with each combination is obtained for various load growth scenarios and probability-weighted values are determined. Hydro-Québec Distribution proposes to conduct the simulation of bid combinations based on analysis of nine scenarios.

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Hydro-Québec Distribution proposes to use a state-of-the-art generation planning model that it has purchased from Henwood Energy Services, a well-known power model vendor, called RISKSYM. Based on the fact that this product seems to be used extensively in similar organizations for projects of similar nature, Samson Bélair/Deloitte & Touche didn't perform any additional audit work on the results of that model and assumed that it respects all the criteria required.

The RISKSYM model analyzes the effects of a wide range of scenarios by simulating the operation of a portfolio of resources for purposes of assessing the portfolio's costs and its associated risk exposure. RISKSYM is used to determine the impact of a given combination of resources on the system supply cost.

RISKSYM also provides a module for portfolio optimization assessment. RISKSYM can also be used as a data interface to PROSYM, Henwood's popular production cost modeling tool. PROSYM is a detailed chronological production-cost model designed to simulate power plant operations and resulting system costs. PROSYM has also been used to forecast energy clearing prices based on a simulation of power plant bidding behavior.

Hydro-Québec Distribution intends to use RISKSYM in combination with PROSYM to simulate generating unit operations for the purposes of obtaining the electricity purchase cost for bid combinations to develop the lowest cost portfolio of resources. Each combination of resources is simulated for several demand growth scenarios: average growth scenario, stronger growth scenarios and below average growth scenarios. A probability is associated with each scenario, with the sum of the probabilities of all the scenarios analyzed adding to 100%.

To balance resource needs in cases where the portfolio evaluated either provides excess or insufficient generation, Hydro-Québec Distribution will develop proxy purchase and resale prices for the power. The purchase price for the power will be based on the cost of a reference project described previously, while the resale price of power will be based on the average of the resale price of a combined cycle facility (less transmission costs and losses) and the price of the Heritage Pool Electricity.

Hydro-Québec Distribution will use a spreadsheet model to undertake the option pricing evaluation. Hydro-Québec Distribution proposes to compare the bid or strike price with an average of the Heritage Pool Electricity price and the price of a reference project (defined as the average of the best 10 proposals). Hydro-Québec Distribution expects to exercise the option to defer only in the low growth scenarios and will pay the bidder the option price or premium only when it exercises the option. This approach allows Hydro-Québec Distribution to compare the option value (difference between a market reference price defined as the average of the Heritage Pool Electricity price and the price of the reference project and the contract strike price) with the option premium contained in each of the bids. The rationale behind this approach is that the deferral option allows Hydro-

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Québec Distribution to defer payment under the contract if load growth is less that projected and excess power is under contract. Without the option, Hydro-Québec Distribution would either have to take more contract power and lower amounts of less expensive Heritage Pool Electricity or resell the power in the market at a level based on a proxy of the market price.

However, as will be discussed, the structure of the Québec market presents challenges in conducting an evaluation of option values associated with the deferral and advancement options proposed in the bids. While the use of these options provides significant value to Hydro-Québec Distribution given the uncertainty associated with load and associated resource needs, the methodology for assessing option value is not clear cut. The process proposed by Hydro-Québec Distribution and potential solutions for assessing option value are addressed in a subsequent section of this analysis.

C. Industry Trends Regarding Evaluation Methodologies

The bid evaluation methodology and tools used by Hydro-Québec Distribution are generally consistent with the bid evaluation methodologies used by many large investor-owned utilities. Most competitive bidding processes generally include a multi-part evaluation process, which includes the following components:

1. Threshold Criteria
2. Price and Non-Price Analysis
3. Detailed Evaluation Process

In the design of a Call for Tenders or competitive bidding program, utilities have to decide initially on the role between threshold criteria and non-monetary criteria. Two approaches have generally been used: (1) include stringent threshold criteria and select, less stringent non-monetary criteria, or (2) include less stringent threshold criteria and more detailed non-monetary criteria. Generally, utilities that may operate in a mature wholesale power market may apply stringent threshold criteria to ensure the bidders conform to a number of minimum conditions prior to submission of the bid. Non-monetary criteria would then play a less important role in distinguishing proposals. The final selection can then be based primarily on price. The intent of using stringent threshold criteria is to ensure all proposals, which pass the threshold stage, are viable and feasible options and price can then serve as a primary determinant.

A common approach used by utilities in a less mature market is to develop a combination of threshold and non-monetary criteria to serve as a basis for ensuring that viable proposals are selected. This approach is applicable in cases where bidders will be challenged to develop proposals that can meet stringent threshold conditions, particularly if this is the first time the competitive bidding process has been implemented or a competitive wholesale market is in its early stages of development.

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Hydro-Québec Distribution has selected a process that combines threshold and non-monetary criteria in a three-stage evaluation process designed to ensure that viable projects are included in the bid combination process in Step 3. Hydro-Québec Distribution's threshold criteria are not stringent but are designed to ensure bidders demonstrate a base level of minimum requirements prior to submitting a bid. However, such a process should encourage a number of projects to compete since the threshold criteria required by Hydro-Québec Distribution are not onerous.

With regard to the role of monetary and non-monetary criteria, it has become more common in the electric power industry that the cost impact of the project on the utility system is the primary criteria for selecting the preferred proposal. Utilities have not only attempted to quantify as many factors as possible but have focused more on developing portfolios of resources designed to achieve the lowest total system cost. While some of the early competitive bidding processes selected the winning projects based on a total monetary and non-monetary score with each having an equal weight, over the past 10-12 years, selection of a portfolio of bids which meets system requirements at the lowest total system cost has become the norm.

Utilities have implemented a range of bid evaluation processes. Also, there are many methodologies and approaches used by utilities to evaluate bids. Several of these are described in this report.

The early approaches involved a threshold evaluation, price screen of all bids, non-price evaluation of remaining bids and a combination of price and non-price criteria to select a short list and final award group. Another approach involved an initial threshold and non-price evaluation of all bids to determine which bids are viable, followed by a detailed price evaluation of the remaining bids to select the preferred options. More recently, due to the increase in the type and differences of resource alternatives (i.e. traditional gas-fired combined cycles and combustion turbines, wind resources, marketer forward contract proposals, short term options contracts, etc) and the characteristics of the alternatives, a more common approach is now to conduct a simultaneous price and non-price screen of similar projects, followed by an integrated evaluation of remaining alternatives as part of an overall portfolio.

Combined with this trend is the use of clustering or segmenting of bids in specific categories to ensure all options have a chance to fairly compete. Under this approach, similar proposals (i.e. baseload or cycling) are evaluated against one another in an initial stage of the evaluation process. This allows for a consistent evaluation of similar proposals and prevents the elimination of some resources merely because the evaluation system was biased against them or there was not a simple price screening methodology to evaluate all bids in an unbiased and consistent manner. This approach has been used by

utilities who want to encourage a number of different options and who expect to receive a large number of bids.

In contrast, utilities who receive a limited number of proposals may decide to subject all bids to a detailed production cost or generation expansion methodology and select the best portfolio on the basis of all bids being thoroughly assessed. In this case, utilities may use threshold and non-monetary evaluation criteria only to ensure that the selected bids are viable projects and have a high probability of being developed effectively while relying on cost as the primary determinant.

The price evaluation methodologies used by utilities have also changed over the past 15-20 years. Initially, utilities would publish their avoided cost in a Call for Tenders or Request for Proposals (RFP) and bidders would have to meet or beat the avoided costs in their proposals. Price points were awarded based on the percent of the bid relative to avoided cost. The price points were combined with non-price points to determine the winning bid. However, these processes allowed bidders to self-score their projects and often led to "gaming" of the system by the bidders. Furthermore, this approach did not lend itself well to a comparison of bids with different dispatch expectations. Utilities could not optimize their portfolio but instead were subject to a biased process, although this type of methodology was easy to implement and it was not time consuming to undertake the evaluation.

Busbar cost analysis has been a common approach used by utilities to conduct price screens or even price analysis of various bids. Some utilities have used such a methodology to compare the pricing of all proposals. However, a major flaw of busbar cost analysis is that such analysis cannot easily distinguish bids or projects with different capacity factors, contract terms, or start dates. Busbar cost analysis is very applicable for comparing or screening proposals with similar characteristics (i.e. combustion turbines or combined cycles with similar heat rates and fuel prices), where plant dispatch levels will not vary significantly.

A form of busbar cost analysis which is very applicable for evaluating similar proposals but with different terms and contract start dates is real levelized cost analysis. Such a methodology can be easily applied using spreadsheets and is very applicable for evaluating similar proposals. The approach proposed by Hydro-Québec Distribution to cluster similar type proposals and evaluate proposals using real levelized cost analysis is generally consistent with industry standards and is an effective methodology for screening analysis. This tool is particularly applicable for Hydro-Québec Distribution given that the expected utilization of the bids is well defined based on the presence of the Heritage Pool Electricity.

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While real levelized cost analysis is valuable for screening purposes, it is limited for more detailed system cost analysis. As a result, the methodologies used by utilities have become more sophisticated. An initial step in moving toward a more integrated evaluation process was to combine the competitive bidding process with the utility's integrated resource plan. In this case, a utility would design a resource plan incorporating the estimated cost of generation alternatives based on accepted industry data (e.g. Electric Power Research Institute or a private engineering firm) that it believed would result in the lowest cost resource plan over a 20 year period. The bids received in response to the RFP would displace the least cost resource identified by the utility. The utility would include the operating parameters specified in the bid, the pricing formulas, and other identified costs in its analysis of each bid. This process allowed the utility to effectively determine the least cost resource option based on dispatch characteristics and operating constraints.

Another approach used by utilities was to assume the bids would displace a zero cost resource at a 100% capacity factor. Each bid would be modeled based on its operating criteria and costs. Required energy that the project could not generate would be met by the "market" at a projected marginal energy cost. In this way, all resources would be evaluated based on the same capacity and energy amounts to ensure consistency.

In many cases, utilities would use a combination of price evaluation methodologies; using simpler spreadsheet analysis (i.e. busbar cost or real levelized cost analysis) to compare proposals in an initial screening phase and more sophisticated integrated generation planning and/or production cost analysis to determine the preferred portfolio after selecting an initial short list of the best proposals.

In selecting the best options utilities have also considered the transmission cost impacts associated with each proposal (including the impact of each bid on the cost of the utilities long term transmission plan as well as transmission losses).

A major addition to the resource procurement and competitive bidding process, which occurred in the mid-1990's, was the use of options pricing techniques for resource planning applications in the electric power industry. Both option contracts and real options applications have become prevalent in the power industry.

Option contracts were used by utilities as an effective hedge against market uncertainty since the holder of such a contract could make a resource commitment decision closer to the actual need date for the resource. Real options involve decision making under uncertainty. In essence, options provide the holder the right, but not the obligation, to make an investment/operating decision at some future date. The value of the option is based on the uncertain economic/financial implications of making an investment/operating decision under a range of probable outcomes.

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In light of the uncertainty in electric power markets, resource flexibility has significant value. Application of options concepts to resource procurement is an effective way to achieve this desired flexibility. Although utilities generally are concerned with load forecast uncertainty, the underlying basis for the value of resource flexibility is the uncertainty associated with the future market price of power. Additionally, the flexibility afforded by options arrangements allows updated information to be considered when making a resource decision.

As noted, options have been used in a number of applications in the electric power industry including:

1. Utilities solicited bids for short-term options contracts. These option contracts sought by utilities provided the utility the right but not the obligation to purchase power at some future date. These contracts were effectively forward contracts (with capacity and energy prices) but with the right of the option holder to exercise or strike the contract if market prices increased or let the option expire if prices declined. Effectively these contracts provided a hedge for the holder against price uncertainty. Alternatively, utilities sought options contracts as a way of protecting against resource need uncertainty. Utilities such as Boston Edison, Duke Power, Tennessee Valley Authority, and General Public Utilities solicited proposals for short term options contracts as a hedge against market (both price and load) uncertainty and to protect against market restructuring implications.

2. Option applications were used in conjunction with resource planning and procurement decisions, as a means of providing flexibility to hedge the risk of resource needs. One of the major issues during the mid to late 1990's in a number of areas was whether or not the utility would be in the position of procuring power for its customers or the customers could shop for its power from unregulated marketers and generators. The uncertainty and cost associated with a decision by a utility to buy long-term resources at a time when load could be lost created a significant financial penalty to the utility. As a result, utilities began to integrate option applications such as contract deferral, buyout, and acceleration provisions into their resource procurement processes and use option pricing techniques to value these options. This approach became known as real option evaluation and was applied by a number of utilities including Central and Southwest Services, Carolina Power and Light, New England Electric Company, and was championed by the Electric Power Research Institute.

3. Bidders for generation assets sold or divested by utilities used option pricing techniques extensively to place a value on these assets. In particular, the option value associated with the ability of an existing site to accommodate plant expansion if market prices increased was one of the primary applications.

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From the resource planning and procurement perspective, a major issue was the uncertainty associated with load and market prices. For example, one of the primary reasons for the accumulation of stranded costs associated with utility commitments for power projects in excess of need was the inability of the utility to accurately forecast load. The long lead times required to bring power generation projects on-line created a great deal of market uncertainty. Lower load growth than forecast led to a situation where utility customers were forced to pay for power they did not need or could not use. The ability of utilities to defer the decision to purchase power from a seller until closer to the time the power is actually needed offered significant value to a utility faced with significant market uncertainty.

Five factors determine the value of an option: (1) the option strike price; (2) the market price of the underlying asset; (3) price volatility; (4) time to expiration; and (5) the discount rate. The major challenge faced by utilities in valuing options was to develop an estimate of price volatility. Utilities frequently conducted monte-carlo simulation on a number of possible economic, demographic, and fuel input price scenarios along with a probabilistic assessment of each scenario. Estimated market prices from each scenario were used as the basis for estimating price volatility. Utilities then used a Black-Scholes or Binomial model to estimate the value of the option. The value could then be compared to the option premium or option price to determine if the option had value. The presence of a market price, however, was required to estimate the option value.

In total, using option pricing techniques, even with their limitations, for valuing flexibility of resource options, represents a major step forward in the traditional resource procurement process. These techniques allow utilities to more effectively balance demand and supply, reduce the lead time needed to make a commitment to a long term resource, and effectively account for the impact of changes in market prices to select the preferred set of resource options.

D. Evaluation Methodologies and Tools To Be Used By Hydro-Québec Distribution

The focus of this section of the analysis will be on the evaluation methodologies and tools used by Hydro-Québec Distribution in Steps 2 and 3 of the evaluation process. Since no quantitative methodologies are used in Step 1, this assessment will therefore begin with Step 2. As noted, Hydro-Québec Distribution's three-step approach for conducting the evaluation of proposals is generally consistent with industry standards. Furthermore, the reliance on threshold and non-price criteria to evaluate project viability, feasibility and flexibility, and the use of monetary criteria as the selection criteria for the portfolio of resources is appropriate and generally consistent with industry standards. The application of the Threshold Criteria in the Call for Tenders should encourage a number of bids since such criteria are not onerous or overly burdensome on power generators.

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Step 2 Monetary Analysis

In this stage of the evaluation, Hydro-Québec Distribution will conduct a real levelized discounted cost analysis of each bid submitted that passes the threshold stage. Real levelized cost analysis is an effective and efficient tool for comparing bids with similar operating characteristics. Given the dominating presence of the Heritage Pool Electricity, the defined operating parameters of hourly dispatchable (e.g. 50% capacity factor) and baseload resources (e.g. based on the guaranteed delivery performance factor) supports the use of busbar cost analysis in this Step of the evaluation process.

Hydro-Québec Distribution's approach of segregating or clustering like bids and comparing the costs of similar bids is a well accepted approach for conducting a price screen of each bid using consistent parameters.

The use of the clusters proposed by Hydro-Québec Distribution (e.g. 2 clusters based on the type of power solicited) are reasonable based on the types of bids solicited. Other utilities have grouped or clustered bids based on technology or specific types of resources (i.e. Combined Cycles, Combustion Turbines, Marketers bids, Option Contracts, Unit Purchases or System Purchases). Such an approach to grouping bids is applicable if a wide range of bids with different characteristics is encouraged and expected.

In addition, modeling each bid based on a consistently developed set of indices provides for a consistent evaluation process. Since bidders do not know the underlying forecasts of the indices allowed by Hydro-Québec Distribution, there is little opportunity for bidders to "game" the system. Also, the use of the same forecaster for all the indices ensures consistency between the relationship of the indices. The only area where some degree of inconsistency is possible is in the forecast of Henry Hub and AECO gas prices. Due to a disparity in the forecasts of several respected forecasting groups regarding the future level of gas prices, Hydro-Québec Distribution decided to develop an average of three forecasts to ensure any outlier forecasts were not biasing the relationship among projects. This is an acceptable approach when there are wide variations regarding the forecast of a key variable.

Overall, Hydro-Québec Distribution's monetary evaluation and methodologies for the Step 2 assessment represents a reasonable approach, which can be easily implemented and can effectively evaluate a number of proposals and variants in a short period of time.

Step 3 Monetary Evaluation

The modeling methodology and tools used by Hydro-Québec Distribution to undertake the Step 3 monetary evaluation are reasonable given the current nature of the Hydro-Québec Distribution system. The RISKSYM model and other modules allow Hydro-Québec Distribution to conduct a number of simulations of key variables, while

providing Hydro-Québec Distribution the opportunity to use these tools in a more sophisticated manner for dispatch analysis as more independent power projects are added to the system. Hydro-Québec Distribution staff has undergone training for this model, which is timely given the Call for Tenders process.

Hydro-Québec Distribution's inclusion of a credit in its evaluation methodology to account for any excess energy or to make up any shortages ensures that all portfolios are compared under the same capacity and energy requirements. The adjustments for excess or shortage energy will thus serve to balance the total energy for each combination to ensure an equivalent evaluation is undertaken.

The nature of the power market in Québec, with no price transparency or active wholesale market, makes it impossible to undertake a traditional option pricing analysis to determine the total value of the options. Option value is equal to the intrinsic value plus the time value, which reflects the price volatility and time to expiration. While price volatility is a key factor in option pricing, such volatility value is not present in the Québec market. Thus, the value of the option is based on the intrinsic value. The intrinsic value therefore measures how much a holder will be willing to pay for the option if it expired instantaneously. This reduces effectively to the difference between the market price and the strike price.

Hydro-Québec Distribution's option evaluation process is consistent with the limitations inherent in the market. The evaluation process involves option pricing based on the difference between a proxy of the market price and the strike price in the contract. This reflects the value of the option. Since Hydro-Québec Distribution will not have to pay the premium on the option unless it exercises the option, the cost/benefit of the option can be calculated as the difference between the option value and the option premium.

Nevertheless, the flexibility associated with the use of deferral and advancement options add significant value to Hydro-Québec Distribution, particularly in light of the load uncertainty on the Hydro-Québec Distribution system. Requiring bidders to price the options in their proposals places the pricing within a competitive framework and enhances the value of the option.

E. Conclusion

The evaluation process and methodologies proposed by Hydro-Québec Distribution are generally consistent with industry standards and should result in a comprehensive and efficient evaluation process. The three-step evaluation process allows for detailed assessments of all bids under a consistent framework. The use of real levelized cost analysis in Step 2 to screen and rank proposals of similar type is generally consistent with industry practices and allows for an effective ranking of bids for inclusion into the Step 3 portfolio simulation evaluation.

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The Step 3 process, which focuses on the simulation of bid combinations to determine the combination of bids which result in the lowest total cost, is similar to the approach used by other utilities. In addition, the incorporation of transmission-related costs and the value of the options proposed allows for a thorough and comprehensive analysis of all direct costs associated with each proposal.

Finally, requiring that bidders include these costs in their proposals ensures that all costs are subject to a competitive process, which should result in the submission of competitive power resource alternatives.

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A. Introduction

This report addresses the activities associated primarily with the bid evaluation and selection stages of Hydro-Québec Distribution's Call for Tenders process. Effectively, the timeframe from receipt of the bids on June 13, 2002 through October 4, 2002 will be the focus of this assessment, with primary emphasis on the three steps of the evaluation and selection process: (1) Minimum Requirements; (2) Sorting of Bids by Category; and (3) Simulation of Bid Combinations.

This report will focus on the application of the bid evaluation methods and Call for Tenders procedures. It will also focus largely on the role and activities performed by Hydro-Québec Distribution during the bid evaluation and selection process from the perspective of Merrimack Energy Group, Inc. (Merrimack Energy), who assisted Samson Bélair/Deloitte & Touche (SB/D&T) in the role of Official Representative. Merrimack Energy also accompanied SB/D&T and Hydro Québec Distribution in the Call for Tenders process and the analysis of bids received. This report primarily focuses on the technical aspects of the tasks associated with the evaluation of the bids received and in the process and procedures underlying the evaluation and selection of bids. The consultants from Merrimack Energy assigned to this assessment have served in similar roles in participating in a number of electric utility competitive bidding and power procurement processes.

For purposes of undertaking this assessment of the Call for Tenders process associated with the evaluation and selection of bids, the following issues will be addressed in this report:

1. Discussion of the various steps or activities in the "bid evaluation" process, including a summary of the objectives of the process, specifications required by regulatory decisions, bid evaluation methodologies and procedures defined by Hydro-Québec Distribution, etc. This section will describe the requirements for the Call for Tenders as contained in "Call for Tenders and Contract Award Procedure" as approved by the *Régie de l'énergie* (Régie) and the Call for Tenders Document.

2. Detailed description of how the "bid evaluation" process and procedures were carried out by Hydro-Québec Distribution. Included in this assessment will be a description of the key tasks, procedures relied upon by Hydro-Québec Distribution to guide the bid evaluation process, issues raised during the evaluation process, and the activities and procedures undertaken to complete the evaluation.

3. An overall evaluation of the performance of Hydro-Québec Distribution in completing this stage of the process. In particular, this section of the report provides an evaluation of Hydro-Québec Distribution's performance from the perspective of several criteria, including consistency, comprehensiveness, unbiasedness, and equity. The performance will also be evaluated relative to the consistency of the process in conjunction with the guidelines established in documents available to bidders.

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The overall bid evaluation process and procedures required are identified in the "Call for Tenders and Contract Award Procedure". The Call for Tenders document further explains the process and procedures to be implemented. Finally, Hydro-Québec Distribution developed processes and procedures which define how the bid evaluation and selection process will be conducted and the methodologies and inputs to be used. These procedures will be addressed in assessing the implementation of the Call for Tenders process and the performance of Hydro-Québec Distribution in implementing the process fairly and equitably.

B. Description of the Bid Evaluation Process

This section of the report will provide a background description regarding the key activities associated with the bid evaluation and selection process. In particular, this report will focus on the following steps of the evaluation and selection process: (1) Minimum Requirements; (2) Sorting of Bids by Category; and (3) Simulation of Bid Combinations. These three steps form the primary technical aspects of the evaluation and selection process, including the details associated with individual bid evaluation.

1. Step 1 of Evaluation Process: Minimum Requirements

The first of the three steps in the evaluation process was the evaluation of bids to ensure they conformed to the minimum requirements listed in the Call for Tenders. These included:

- Identification and demonstration of control over the site for the project. The bidder shall identify the site for the proposed project. The bidder shall at least hold a letter of intent pertaining to the acquisition of the site.

- The bidder shall agree to comply with the type and level of security required in the Call for Tenders.

- The bidder or its affiliated companies must demonstrate experience in the development and operations of at least one project of a nature similar to the one they propose to develop.

- The generation technology proposed must have reached a proven level of technological maturity and the generation equipment must be commercially available. To demonstrate technological maturity, the bidder must show that the equipment is in use in at least three facilities that have been delivering energy for at least three years.

- The power plant must be able to be connected to the TransEnergie system in time to meet a commencement date of delivery no later than March 1, 2007.

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All the information necessary to evaluate the bids from the perspective of meeting minimum requirements was requested in the Bid Form included as Appendix 11 in the Call for Tenders. In the case of interconnection requirements, TransEnergie was responsible for making the determination of the adequacy of the proposal to meet the required commercial in-service date. TransEnergie, therefore, reviewed and evaluated sections of the bids pertaining to this information.

2. Step 2: Sorting of Bids By Category

In Step 2 of the bid evaluation process, all bids which passed the minimum requirements criteria were subject to a monetary and non-monetary evaluation. First, bids were grouped by category (i.e. baseload deliveries and hourly dispatchable deliveries) and were evaluated relative to each other within the category. Next, each of the bids was evaluated individually within their category relative to the five criteria listed below and included in the Call for Tenders (Total of 100 points).

- Cost of electricity ..... **60 points**
- Financial Strength ..... **10 points**
- Relevant Experience .. **10 points**
    - Bidders and affiliates past experience in developing projects .....4 points
    - Bidders and affiliates key personnel .....3 points
    - Partners, consultants, and suppliers .....3 points
- Project Feasibility ..... **10 points**
    - Interconnection to the grid .....2 points
    - Master Plan for realization of the project .....3 points
    - Supply Plan for fuel .....2 points
    - Plan for obtaining environmental permits.....3 points
- Flexibility ..... **10 points**
    - Deferral Options .....4 points
    - Possibility of Advancement .....4 points
    - Flexibility in delivery scheduling rules .....2 points

The above criteria and the total points allocated to each criterion were identified in the Call for Tenders document. Furthermore, Appendix 11 (Bid Form) in the Call for Tenders provided a list of questions to be addressed in the bidders proposal, information required to be filed by the bidder, and in some cases forms for completing and incorporating such information in the proposal.

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The Call for Tenders also described each criterion and the important characteristics of each criterion for consideration by the bidder. As an example, with regard to Flexibility, the Call for Tenders states that Hydro-Québec Distribution is "seeking contracts that will offer, in a cost-effective manner, flexibility to adjust the schedule for deliveries to allow for changes in the demand for electricity and to react efficiently to various contingencies". Within this criterion Hydro-Québec Distribution identified two sub-categories and allocated points between the following two elements: (1) modification of the guaranteed commencement date of delivery, and (2) scheduling of deliveries. For example, Hydro-Québec Distribution stated in the Call for Tenders that bids which include deferral options with strike dates closer to the guaranteed commencement date of delivery were deemed valuable. The Bid Form further defined the requirements for bidders in submitting their flexibility options.

In addition to modifications to the guaranteed commencement date, bids that offered dispatchable deliveries as well as baseload deliveries were considered to have greater value. Also, bids with fewer scheduling constraints were considered more valuable.

The monetary evaluation at this stage in the process was designed to compare one bid against similar proposals from a project pricing perspective. Hydro-Québec Distribution elected to use a real levelized cost analysis approach for evaluating each bid. This approach therefore took into account the pricing terms (capacity and energy) submitted by the bidders as well as the guaranteed volumes and operating characteristics (i.e. heat rate) in estimating the annual cost of electricity and yearly discounted cash flows. Hydro-Québec Distribution used its forecasts of fuel price indices, inflation indices, discount rates, and other pricing formula inputs to estimate the long-term cost of power from each proposal.

The result of this analysis would therefore be a single price of power (i.e. real levelized cost, which is the price in year one, which, if escalated by inflation, provides the same net present value cost stream as the proposed pricing formula) no matter the term of the contract. The 60 monetary points were awarded based on the relative price of each bid (including applicable transmission costs) to the lowest price bid, within each category of bids (i.e. baseload and hourly dispatchable).

The bids were to be evaluated relative to the weights given in the bid analysis grid. Bids were to be classified based on the results obtained during the evaluation. The rankings of bids at this stage of the evaluation were to be determined based on the total monetary and non-monetary scores. While the objective of this stage of the evaluation was not to eliminate any bids, the results of this assessment served to order the bids for inclusion into the Bid Combinations in Step 3. Thus, as stated in the Call for Tenders and Contract Award Procedure, this step allowed for a first classification of bids, which may limit the number of bid combinations that will be analyzed in more detail in the third step.

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The result of this Step in the evaluation process was a ranking of bids based on a total monetary and non-monetary score.

3. Step 3: Simulation of Bid Combinations

The next step in the evaluation process is the simulation of bid combinations. In this step of the evaluation, monetary criteria were to be evaluated in more detail, taking into account interactions with the Distributor's various supply sources. In this Step of the process, Hydro-Québec Distribution would rely on a combination of the best bids from Step 2 to develop and evaluate portfolios of bids that met the stated baseload and hourly dispatchable quantities identified. The number of combinations to be evaluated shall largely depend on the number of bids received and the size of the bids in Megawatts (MW).

The objective of this Step in the evaluation process was to structure portfolios of bids which provided the lowest total cost, including the impacts of applicable transmission costs and the value of the options offered. The choice and number of bids selected for each stage can vary based on the needs to be met, the size of the bids, and the possibility of the Distributor for combining bids. In the analysis of bids, all portfolios shall be compared based on an equivalent level of service (i.e. capacity and energy) with the same time horizon.

In this step of the evaluation, all applicable transmission costs are included in the analysis for each portfolio. The analysis regarding transmission costs was to be completed by TransEnergie based on the bid combinations/portfolios provided by Hydro-Québec Distribution.

Hydro-Québec Distribution shall simulate the bid combinations under several demand scenarios based on the economic and fuel cost parameters used in Step 2. In this Step, Hydro-Québec Distribution shall rely on a sophisticated computer model, RISKSYM, developed by Henwood Energy Services, Inc., to determine the impact of a given combination of bids on the Distributor's supply costs.

C. Implementation of the Bid Evaluation Process

This section of the report describes the actual implementation of the bid evaluation and selection process, including the roles and activities of the Hydro-Québec Distribution project team as well as the role and activities of the Official Representative. In addition, the report will identify and address any issues that arose in the evaluation process and describe the approaches taken for handling such issues.

One of the most important activities undertaken by Hydro-Québec Distribution affecting the evaluation process was the development of methodologies and criteria for bid evaluation. These methodologies and criteria were completed prior to receipt of bids. The personnel responsible for evaluating the bid were also involved in developing the criteria for their specific categories.

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A representative of Hydro-Québec Distribution's Project Team was assigned to each specific criterion. The representative was required to evaluate each bid relative to the same criteria to ensure consistency of the evaluation. Evaluation sheets served as the basis for evaluation of each bid.

The role of the Official Representative in the evaluation process was also identified. This role basically consisted of reviewing the documentation developed by the designated members of the team to evaluate the different criteria to ensure the results are consistent and equitable from one bid to another. The Official Representative took part in periodical meetings with evaluation team members and could be called upon to advise the various team members during the evaluation process.

Also, Hydro-Québec Distribution organized a Call for Tenders Committee. Participants of SB/D&T and Merrimack Energy attended Committee meetings. The Committee met on a regular basis during the bid evaluation and selection process to discuss the status of the process and address any issues.

In several Call for Tenders or Request for Proposals processes, non-monetary criteria evaluation can be highly subjective. However, one of the goals of Hydro-Québec Distribution was to quantify the non-monetary criteria as much as possible to avoid relying on subjective evaluation. As a result, even the non-monetary criteria can be classified as generally objective and quantifiable. This served to minimize evaluation bias and led to a more defined evaluation. The significant up-front time spent by Hydro-Québec Distribution to craft such a process and clearly define how bids would be evaluated within each category facilitated the non-monetary evaluation process.

Further specific details associated with the implementation of the bid evaluation and selection process is provided below by Step.

1. Step 1: Minimum Requirements

Bid evaluation forms were created to evaluate proposals relative to the Minimum Requirements. Evaluators were assigned to each Minimum Requirement and undertook a review of the bids relative to the minimum requirements. The results of the evaluation were reviewed by a member of the Official Representative's project team. A representative of the Official Representative also read the bids and identified specific questions about select bids that were included in the list of questions sent to bidders to clarify or complete the bid. All evaluations and questions were provided to the Director. After review of the bids and the evaluation of the Hydro-Québec Distribution project team, the Official Representative was confident that all bids met the Minimum Requirements.

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In our view, the Minimum Requirements were not strict by industry standards. Thus, these Minimum Requirements should not have discouraged bidders from completing and submitting a proposal.

2. Step 2: Sorting of Bids By Category

All remaining bids were subject to the Step 2 evaluation, which included both a monetary and non-monetary evaluation. Hydro-Québec Distribution formed separate project teams to address the monetary and non-monetary aspects of the bids. While staff involved in the monetary evaluation did assist in developing quantitative information associated with the flexibility criteria for the non-monetary evaluation, the project teams did not overlap. As a result, the non-monetary evaluation was not biased by the results of the monetary evaluation.

For the non-monetary evaluation, project team members were assigned to specific criteria and were required to evaluate all bids relative to the criteria. Project team members completed an initial evaluation based on the established criteria. The evaluation process was based on detailed information for each criterion including the basis or requirements for evaluating bids. This allowed Hydro-Québec Distribution's evaluators to document the evaluation of bids and allowed for the Hydro-Québec Distribution evaluator to demonstrate consistency.

The preliminary results of the evaluation for each category completed by the project team members from Hydro-Québec Distribution were sent to Merrimack Energy for review to ensure consistency in the evaluation. In particular, the subjective criteria (i.e. fuel supply plan, project developers experience, and master plan for realization of the project) were closely reviewed by Merrimack Energy. Merrimack Energy read the proposals relative to the established criteria and critiqued the bid evaluation results and the justification documented by Hydro-Québec Distribution for awarding points to each bidder.

Subsequent to Merrimack Energy's review, Merrimack Energy, Hydro-Québec Distribution project team members, and the Hydro-Québec Project Manager discussed the results of the evaluation, with Merrimack Energy consultants challenging the results of the evaluation, when necessary. In some cases, the evaluation process went through several iterations before final evaluations of each bid were completed by Hydro-Québec Distribution. The objective of this process was to ensure that a consistent evaluation of each bid was undertaken within each criterion and to eliminate or minimize the risk of evaluation bias.

All bids were evaluated based on the information presented by the bidder in its proposal. Hydro-Québec Distribution team members were informed by the Director of Electricity Supply to initially rely on the information provided by the bidder and not to speculate about the bid or information presented. In cases of doubt, follow-up questions were submitted to the bidder.

Several non-monetary criteria were objective in nature. In these cases, the evaluation of bids was generally straight forward. In several cases, detailed formulas or algorithms were pre-established.

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Evaluators had to either insert data into the formulas or read pre-established data tables to derive the point scores. For these criteria, Merrimack Energy reviewed the results of the evaluation to ensure all evaluations were appropriately conducted. Spot checks were undertaken to validate computations.

The monetary evaluation proved to be more time consuming and detailed. Due to the complex nature of the pricing formulas contained in the bids, both Hydro-Québec Distribution and Merrimack Energy undertook independent efforts to model the bids using real levelized cost analysis methodologies. Both analyses relied upon the same forecasts of fuel commodity prices and inflation indices. The difference in the methodologies was largely attributed to the interpretation of the bid pricing formulas.

Importantly, both models were consistent in applying real levelized cost techniques. This was demonstrated by the fact that for several proposals, the real levelized cost derived by both Hydro-Québec Distribution and Merrimack Energy produced the same result, even though the bids were independently evaluated.

For more complex proposals, the results initially varied although the ranking of bids generated by the two processes were generally similar. Members of Hydro-Québec Distribution's and Merrimack Energy's project teams exchanged all spreadsheets and met on several occasions to review the evaluation of each bid and assess the reasons for the differences in results. Although the objective of this analysis was not to derive the same exact price, comparisons of methodologies and interpretations of bid formulas highlighted important areas of the bid formulas for further assessment. After reviewing each bid, and identifying any computational errors, the differences in results were identified and explained. In general, the differences could be traced to the following factors:

- Hydro-Québec Distribution's premise was that the delivered fuel costs for natural gas to the Québec border should be similar for each bid. Only the unit heat rate and any unique costs associated with delivering gas to a specific or different location in Québec would distinguish bids. Thus, Hydro-Québec Distribution assumed that the fuel price components of the gas proposals should be the same at the Québec border, due to the option for gas index replacement in the Call for Tenders document. Projects located in a different part of the pipeline system were evaluated based on their unique location and pipeline transportation options and costs. Merrimack Energy, on the other hand, evaluated bids as submitted with the premise that some bidders may include costs in various components that reflect how payment will occur. For example, some bidders included gas transportation costs in the capacity component, while others maintained a separate pricing component. In some cases, it was not entirely clear how all costs were allocated to the various pricing components. In any case, the premise of Merrimack's analysis was that bidders would be paid on the basis of the formulas proposed. Merrimack Energy also developed its own estimate of current and future gas

transportation rates for inclusion in the evaluation process. Thus, the fuel cost components of each bid could vary based on their pricing formulas.

- Hydro-Québec Distribution and Merrimack Energy applied slightly different methodologies for inflation-related indices in the modeling of bid pricing formulas. Merrimack Energy applied a more simplistic annual inflation adjustment while Hydro-Québec Distribution used a more detailed monthly inflation adjustment that more accurately replicated the bidders proposal.

- Hydro-Québec Distribution included a 3% gross revenues tax adjustment to its pricing analysis, while Merrimack Energy's assessment included pricing prior to accounting for the revenue tax.

- A few proposals included conditional pricing formulas that specified that for actual payment purposes the pricing would be the higher of two values (i.e. the actual rate of inflation or 3% per year). For modeling purposes, it is fairly straight forward to apply the formula based on the inflation forecast. However, for actual payment purposes upside exposure could be greater with such a pricing mechanism. Hydro-Québec appropriately included a price risk adjustment for such bids to attempt to reflect the potential upside in price. Merrimack Energy did not include such an adjustment.

- Hydro-Québec's analysis reflected the impacts of the transmission costs included in this phase of the evaluation process (i.e. cost of the step-up substation, the cost of interconnection to the regional system, the electrical loss rate, and an estimate of the time required to complete the work). Such costs were compiled by TransEnergie and provided to Hydro-Québec Distribution. Merrimack Energy's analysis did not include such costs.

- Merrimack escalated all gas transportation costs by inflation, including the demand charge component. Hydro-Québec Distribution's approach relied on the delivered price into Québec as forecast by the independent forecasting firm retained to develop forecasts of key fuel prices.

After review of the model results, the differences between the evaluations of Hydro-Québec Distribution and Merrimack Energy were identified reflected in the review of bids. Subsequent to accounting for these differences, the overall ranking of the bids was virtually identical. Importantly, the ranking of the top bids were either the same or could be explained by the differences in the methodologies. Based on this parallel review and detailed evaluation, Merrimack Energy was in agreement with the results of the monetary analysis and the associated ranking of bids completed by Hydro-Québec Distribution in this Step of the evaluation process. These results were used by Hydro-Québec Distribution for decision making.

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Nevertheless, the evaluations undertaken identified a slight potential bias in the overall evaluation process. The most obvious and important biases to the evaluation process were the differences in basis differentials between sourcing gas at Dawn or at AECO for delivery to Québec and the difference between reliance on the basis versus the higher firm transportation rates.

With regard to the basis, while it is reasonably expected that in a competitive gas market any differences in price between these points should be short-lived and that the cost of delivering gas to Québec should be the same from both points, the fuel price forecast contained a potential bias in favor of a Dawn index. This potential bias was highlighted due to the differences in pricing methodologies undertaken by Hydro-Québec Distribution and Merrimack Energy. This potential bias was not material as will be explained in following paragraphs.

Also, the basis values were consistently lower than the firm transportation rate for transporting gas to Québec. Merrimack Energy used the firm transportation rates in its analysis since most bidders were proposing to secure firm transportation or be paid on the basis of firm transportation costs.

Hydro-Québec Distribution's premise that delivered gas costs to the Québec border should be the same in a functioning competitive market, is entirely accurate. If one area or another enjoyed a competitive advantage, more gas would be sourced at this point, pushing up prices and equalizing costs. Thus, the basis forecast by the outside firm retained by Hydro-Québec to provide the fuel forecast contained a slight potential bias. Hydro-Québec Distribution addressed this potential bias in its evaluation. For example, following this comparison, the basis from Dawn to the Québec border was revised to reflect the firm transportation rate. This revision was also in line with the new rate application filed by TransCanada Pipelines with the National Energy Board.

An addendum to the Call for Tenders addresses the dynamics of the gas market and the possibility that market changes could present more favorable gas pricing opportunities in the future. This addendum provides Hydro-Québec Distribution some flexibility to request alternative price indices. Thus, to address this potential bias, several bids proposing an AECO index were also evaluated using a Dawn index to test the sensitivity of the bid results to the selected index. The result of this assessment was that the ranking of the bids did not change.

A further issue was the development of the methodology and appropriate assumptions for comparing the bids based on existing generation with the other bids relative to the transmission cost impacts. In this case, Hydro-Québec Distribution decided to impute transmission costs to those bids based on the assumption that new units would need to be built and interconnected to the transmission system in order to meet bidder's obligation starting in 2006-2007.

The final step in this stage of the evaluation process was to combine the monetary and non-monetary points for each bid and develop a ranking of the bids. This process involved a

challenge that all utilities have faced when scoring proposals. The difficulty is the process for converting real levelized prices for each bid into points for comparison with the non-monetary points.

The approach used by Hydro-Québec Distribution was to award the maximum 60 points to the lowest price bid within each category and prorate the points to the other bids based on their score relative to the best bid. For example, a bid that was double the price of the best bid would get one-half the points of the best bid. In this case, if the best bid cost 6 cents, it would be awarded 60 points. A 12 cent bid would receive 30 points. All bids would therefore be awarded points based on its relative percentage to the best bid.

The price and non-price scores were then combined to arrive at a total score for each bid. Based on the rankings, Hydro-Québec Distribution decided to consider only those bids that scored at least 80 points in the Step 3 portfolio evaluation. The 80 point cut-off was selected due to the difference in points between a bid which scored above 80 points and the next best bid which scored lower that 80 points. The difference between the last bid selected and the highest scoring bid below 80 points was two points. The 80 point cut-off, therefore, represented a logical break point for Step 2.

All selections and decisions were based on Hydro-Québec Distribution's results and methodologies. Merrimack's evaluation was only used to challenge and validate the Hydro-Québec Distribution process.

3. Step 3: Simulation of Bid Combination

Step 3 of the evaluation process represented the final step of the evaluation process. In this step, monetary criteria were evaluated in more detail, including the total cost of the combination of bids to meet the established requirements. In this case, the best bids in each category (baseload and dispatchable) shall be retained to form combinations which allow the target baseload quantities (900 MW) and dispatchable quantities (300 MW) to be attained.

For the Call for Tenders process, the Step 3 evaluation represented a simulation assessment rather than a system optimization process. In essence, given that this process represented the first Call for Tenders and that existing resources encompass the Heritage Pool Electricity contract volumes, there is little opportunity to optimize the portfolio of resources at this time. Thus, Hydro-Québec Distribution's methodology can be classified as a simulation process with the bid combinations effectively representing a block of capacity and associated energy.

Based on a lowered overall demand forecast developed during the bid evaluation process, Hydro-Québec Distribution revised the basis of its evaluation methodology during this stage of the evaluation. Hydro-Québec Distribution decided to evaluate all portfolios on the basis of 1,050 MW (i.e. reference quantity), with a ceiling of 1,200 MW. In developing portfolios, no portfolios were evaluated which exceeded 1,200 MW or were below 900 MW. Hydro-Québec stopped

adding projects to a portfolio if the total exceeded 1,050 MW. (Actually when the addition of a bid resulted in the total capacity of the portfolio being greater than 1,050 MW, two portfolios were created, one with the bid in and one without the bid).

Hydro-Québec Distribution created 29 portfolios for evaluation, which included combinations of eight different baseload and two different cycling projects. In addition, the portfolios contained several different size options for the bids submitted by some bidders.

Since the portfolios were evaluated based on a reference quantity of 1,050 MW, Hydro-Québec Distribution had to ensure that all portfolios were treated consistently. Hydro-Québec Distribution evaluated all bids over a 20-year time frame. In addition, it was necessary to balance the energy for each portfolio. For example, a 1,200 MW portfolio produced more capacity and energy than was required, while a portfolio less than 1,050 MW produced lower amounts of output than required. A crediting/purchase mechanism was therefore required to ensure the portfolios were consistently and equitably evaluated.

Hydro-Québec Distribution developed two adjustment mechanisms to ensure the portfolios were consistent. Without the presence of a "market price", Hydro-Québec Distribution had to estimate both a purchase price (for power required from the "market) and a resale price (for power resold into the market). If the portfolio generated more output than required, Hydro-Québec Distribution assumed the power would be resold into the market and the portfolio would be credited based on the volume sold times the resale price.

The resale price was established as the average of the Heritage Pool Electricity supply price and the cost of the reference plant. This reflected the fact that excess generation effectively serves two functions: (1) it could displace Heritage Pool Electricity supply at its associated price or (2) it could be resold into the market at the long-term market price.

On the other hand, if output from the portfolio was below that amount required, the additional supply cost was assumed to be equivalent to the reference plant cost plus 10% to reflect the transmission cost involved in importing power from neighboring systems. For conducting the analysis, Hydro-Québec Distribution established the price of the reference plant to reflect the average cost of all projects evaluated as part of the portfolios in Step 3.

In our view, this approach represents a reasonable solution for equitably comparing portfolios and is consistent with industry standards in conducting such a simulation evaluation. Use of a reference price to reflect both sales of excess power and purchases is consistent with other processes. In most cases, utilities have used a reference price based either on the price of a generic unit contained in its integrated resource plan or on a short-term market price. Hydro-Québec Distribution's approach of using the average price of actual bids is a preferred solution for long-term options, since it represents actual costs of competitive projects and not generic costs. In addition, the price of the Heritage Pool Electricity supply represents the opportunity

cost of power, since power from this source will be displaced if all the additional output cannot be sold.

In addition, the total cost of each portfolio reflects the value of the deferral option and total transmission costs associated with the portfolio of projects. The most complex aspect of this analysis was the development of a methodology for establishing the option value. The underlying value of the deferral option is based on the premise that if demand growth is lower than expected, the Company would reduce its costs if the cost to defer (based on the actual costs submitted by the bidders) is less than the added costs associated with the purchase of all contract power, adjusted for any resale of the power into the "market".

The methodology developed by Hydro-Québec Distribution and reviewed by Merrimack Energy reflected the fact that the option allows Hydro-Québec Distribution the opportunity to "buy time" to assess how demand growth would actually change before deciding whether or not to exercise the option. For example, if two years after the contract is signed, it becomes obvious that load growth is following a pattern that would result in the need for only 900 MW in the first year of the contract, Hydro-Québec Distribution could then decide to defer the in-service date of a project. However, to conduct the analysis given what is known at this time, it is necessary to develop a probability distribution based on the possible reduction in power supply requirements.

Given the structure of the market in Québec, we believe the approach used by Hydro-Québec Distribution is reasonable and provides an effective methodology for evaluating deferral options.

In addition, Hydro-Québec Distribution limited the number of simulations and scenarios undertaken during this stage of the evaluation. Hydro-Québec Distribution originally indicated it would simulate each combination of resources evaluated under nine demand growth scenarios. A probability was to be associated with each scenario and an expected value generated based on the demand growth scenarios. Given the time constraints associated with undertaking this type of analysis and the trends emerging in the evaluation process, Hydro-Québec-Distribution decided to limit the scenarios to five demand growth cases, all addressing normal or lower than normal growth since the value of the options would be associated with cases in which demand growth was lower than planned for.

In Step 3 of the evaluation and selection process, a representative from Merrimack Energy was actively involved in reviewing and commenting on the model output and results from the portfolio simulation analysis. The following identifies several of the roles provided by Merrimack Energy during this stage of the process:

- Conducted several sessions with members of the Hydro-Québec Distribution team responsible for conducting the Step 3 evaluation. This included review and discussions about operations of the RISKSYM model, as well as the inputs and outputs.

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- Conducted several sessions reviewing the results of model runs generated during the bid combination/portfolio process. Due to the large quantity of output generated for each case, our focus was on reviewing and evaluating a few bid combinations and ensuring consistency of results using an "indicator" as a reasonableness check. In past assignments of this nature, a reasonable indicator has been the relationship between the dispatch price of the project bid (i.e. fuel plus variable O & M costs), the unit heat rate and the estimated capacity factor. Since most bids in this and other RFP's or Call for Tenders are combined cycles with similar heat rates, the dispatch price and capacity factor are generally closely correlated. In this Call for Tenders, such an "indicator" would not be effective, since most of the bids were baseload projects. However, it was discovered that the real levelized cost from the Step 2 evaluation and the net present value or average price from the average growth scenario from Step 3 were highly correlated. Thus, the pricing derived in Step 2 provided a good indicator regarding the ranking of projects in Step 3.

- Hydro-Québec Distribution provided model results for all cases for review.

- Conducted discussions with Hydro-Québec Distribution on the development of the pricing methodologies for both the resale price of power and the purchase price.

- Hydro-Québec Distribution and Merrimack Energy had several discussions about the appropriate approach for modeling the value of the deferral option. In addition, Hydro-Québec Distribution presented its methodology and results of the analysis to Merrimack Energy for review. As noted, we believe this approach is the most reasonable alternative given the market structure in Québec.

In conclusion, in all cases, Hydro-Québec Distribution was responsible for deciding on the appropriate methodology. The Step 3 evaluation was a thorough and detailed simulation analysis. The results of the analysis demonstrated that only a few combinations of bids were candidates for providing the lowest cost options.

D. Evaluation of Hydro-Québec Distribution's Performance in the Bid Evaluation and Selection Process

To assess Hydro-Québec Distribution's performance in carrying out the evaluation and selection process, it is necessary to first identify the criteria for undertaking our assessment. Our objective in selecting and implementing these criteria is to develop a yardstick by which to measure how Hydro-Québec Distribution fulfilled its role in the evaluation and selection process.

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The criteria selected for use in the assessment include the following:

- Consistency
- Inherent Bias
- Fairness/equity
- Comprehensiveness

The criteria are applied to Hydro-Québec Distribution's implementation of the evaluation and selection process as well as Hydro-Québec Distribution's ability to adhere to the requirements outlined in the Call for Tenders document and the bidding procedures. Therefore, the critique will focus on the implementation of the process rather than specific issues regarding the process.

A more detailed discussion of the criteria and the questions/issues which are addressed in the process are discussed below:

a. Consistency

This criterion focuses on whether or not Hydro-Québec Distribution followed the intent and procedures outlined in the key documents in a consistent manner. Consistency applies to both monetary and non-monetary issues. The key questions include:

- Did the evaluation team maintain consistent scoring and evaluation among projects?

- Does the price evaluation system allow for consistent evaluation of bids of different size, in-service date, and length of contract?

- Are bids with different characteristics treated the same?

In our view, Hydro-Québec Distribution's evaluation and selection process was consistent. From a non-monetary perspective, the approach of requiring individual personnel to evaluate specific criterion for all bids ensures that bids should be consistently evaluated since the evaluator has the opportunity to not only evaluate one specific criteria relative to their expertise but to review the relative scoring of each bid within the established criteria.

The monetary evaluation methodologies were designed to evaluate bids using the same or consistent set of input parameters, based on the same amount of energy and capacity (in Step 3), and applying recognized approaches for ensuring that all portfolios are compared equally. In addition, the real levelized cost analysis applied in Step 2 is an excellent methodology for comparing bids of different terms and sizes using a consistent methodology.

Finally, the approach of categorizing bids into baseload and cycling allowed for a comparison of bids with the same characteristics against one another. This approach ensured a consistent assessment for each type of bid.

b. Bias

The issue of bias in the evaluation process reflects any prejudice on the part of evaluators toward a specific bid, and any aspects of the evaluation process which may prejudice subjective evaluation (i.e. knowing the price score of bids before completing the non-monetary evaluation). The issue of bias is important because Hydro-Québec Distribution expected to receive a bid from an affiliate.

Also important from the perspective of bias entering a subjective evaluation are the steps taken by Hydro-Québec Distribution to eliminate or minimize potential bias. As noted previously, Hydro-Québec Distribution attempted to minimize the subjective nature of the non-monetary criteria evaluation process by quantifying the scoring process for select criteria. As a result, only Project Experience, Fuel Supply plan, and to some degree the Master Plan for Realization of the Project (a total of 15 points out of 40 non-monetary points) can be considered subjective.

Our assessment of any biases in the evaluation and selection process will focus on the following issues:

- Was there evidence of any bias regarding the evaluation of Hydro-Québec Production's bid relative to other bids?
- Did any inherent bias exist toward any type of project in the evaluation process?
- Did the evaluation process itself address the potential for bias?

With regard to bias in a bid evaluation process, the most obvious consideration is whether or not the process favors the bid of the utility or an affiliate. We are aware of other RFP processes that have crafted evaluation questions to support a utility or affiliate bid or have designed the evaluation process to favor the utility or an affiliate.

The approach undertaken by Hydro-Québec Distribution contains no such apparent bias. Hydro-Québec Production (HQP) was eligible to bid into the Call for Tenders and all bidders were aware of that option. Also, Hydro-Québec Distribution attempted to ensure all costs attributed to other bidders would apply to Hydro-Québec Production's bid. Most notably, although the bids were from existing units, Hydro-Québec Distribution imputed a cost of transmission to Hydro-Québec Production to ensure that Hydro-Québec Production was not favored given its unique status. This served to eliminate potential bias associated with the use of existing transmission, which is not comparable for other bidders. Also, the use of monetary criteria as the basis of

selection in Step 3 removes the most likely bias that occurs in the use of subjective non-monetary criteria. We are also not aware of any advantage that Hydro-Québec Production had with regard to information about the Call for Tenders and other information. All bidders were provided with the information at the same time.

In our view, Hydro-Québec Distribution's monetary evaluation process in Step 2 contained a potential bias toward certain gas-fired projects and also could be potentially biased toward bids with a proposed Dawn basis. The combination of the independent pricing analysis undertaken by Merrimack Energy, a review of the two methodologies and subsequent adjustments, and the follow-up evaluation of the different gas price indices undertaken by Hydro-Québec Distribution served to address this potential bias.

c. Fairness/Equity

The issues of fairness and equity in project evaluation and selection addresses whether or not all projects are treated and evaluated the same and within the specified parameters outlined in the Call for Tenders. Issues associated with the fairness/equity criteria include:

- Was the process implemented to ensure that no bidder had an inherent competitive advantage?
- Did the evaluation system serve to guarantee that all projects were fairly and equitably treated?
- Did all bidders have access to the same information?
- Did the monetary evaluation process ensure that all bids were treated fairly?

Based on our direct involvement in the process, we could find no examples where one bid was more favorably treated than another. First, the presence of the Official Representative and its role as link between Hydro-Québec Distribution and the bidder ensures that all bidders had access to the same information at the same time. In addition, the process was a fairly open process with information pertinent to all bids provided on the Website for review. The Call for Tenders was also designed to explain in detail the evaluation process, the requirements of Hydro-Québec Distribution, and the information which all bidders were required to submit. In comparison to other RFPs, this Call for Tenders process was one of the most open and public.

As noted before, we do not believe any bid had an inherent competitive advantage within the parameters of the Call for Tenders. The Non-Compliance assessment and follow-up information requirements of bidders ensured all bidders provided the same information for evaluation purposes. Also, Hydro-Québec Distribution was focused on ensuring that all bidders competed on an equal footing. In the case of the bidder who was disqualified, Hydro-Québec Distribution

was diligent in attempting to allow the bidder the opportunity to conform its bid. The bidder actually decided to "disqualify itself" by not conforming to the requirements of the Call for Tenders.

d. Comprehensiveness

The last criterion, comprehensiveness, involves two factors. First, the Call for Tenders process must ensure that all relevant information was provided to perform a thorough evaluation. In that regard, it is important that the evaluation criteria and information requested are linked and that detailed information is provided. A second consideration is the level of documentation developed to support decisions.

With regard to the first issue, the Call for Tenders process was well structured to ensure that the information required in the Call for Tenders document was linked to the evaluation criteria. Hydro-Québec Distribution requested a considerable amount of information from the bidder to gain an in-depth assessment of the project proposed and utilized all the relevant information to evaluate and score the bid.

The thoroughness of the evaluation criteria also enhanced the ability of Hydro-Québec Distribution to develop a comprehensive information base to support the non-monetary and monetary evaluation. Merrimack Energy reviewed the non-monetary and monetary evaluation documentation and recognizes the thoroughness of the documentation process.

E. Conclusions

The Call for Tenders procedures followed by Hydro-Québec Distribution and the subsequent bid evaluation and selection processes and methodologies are, in substance, consistent with industry standards for similar resource procurement processes. The following summarize some of the major considerations relative to the consistency of the Call for Tenders with industry standards.

- The three-stage evaluation process followed by Hydro-Québec Distribution (i.e. Minimum Requirements, Monetary and Non-Monetary evaluation, and Bid Combinations/Portfolios to determine lowest system cost) is, in substance, consistent with the approaches followed by other utilities. In particular, the use of monetary or price values or total cost as the final determinant for bid selection is common practice in the industry. This approach minimizes evaluation bias and represents the most objective approach for bid selection.

- All bidders received equal access to the same information through conduct of the bidders conference, response to questions, a detailed Call for Tenders document, and a series of addendum, when necessary. In addition, along with this practice, the linkage between the

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Call for Tenders document, the detailed evaluation requirements, and follow-up questions to bidders ensured that the evaluation process was fair and comprehensive.

- Hydro-Québec Distribution's objective to incorporate the value of flexibility through the encouragement of bids for both deferral of the project in-service date and acceleration of the start date mirrors the approach undertaken by a number of utilities faced with energy price and load uncertainty. In addition, requesting the bidders to price such flexibility in their bid enhances competition and allows for consideration of all costs in the final evaluation.

- Subsequent to receipt of bids, Hydro-Québec Distribution communicated with bidders through follow-up questions about the bids to ensure all bidders were evaluated consistently. This reflects an approach used by other utilities in similar processes designed to ensure all bids are accurately and consistently evaluated.

- Hydro-Québec Distribution has used a sophisticated industry model to undertake the Step 3 system integration approach for modeling bid combinations. Most other utilities have used such tools in conducting their assessment of the impacts of bids or combination of bids on total system costs.

- Hydro-Québec Distribution has included all direct project costs as well as system transmission and option costs associated with each bid or combination of bids in the evaluation process. This is consistent with other utility approaches, which have attempted to include all cost impacts in their analysis.

- Hydro-Québec Distribution developed the evaluation guidelines, evaluation criteria and scoring system, and forecasts of the allowable indices prior to receipt of bids. As a result, with few exceptions (e.g. the gas price forecast was subsequently updated), evaluation parameters were pre-established prior to bid receipt and evaluation biases were therefore minimized or eliminated.

- Hydro-Québec Distribution has developed a detailed documentation process designed to support the evaluation and selection decision for both the non-monetary and monetary criteria.

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PIERRE DEVOST, ing., MBA, CMC, DIRECTEUR PRINCIPAL

Pierre Devost est directeur principal au bureau de Montréal de Samson Bélair / Deloitte & Touche , dans la pratique *Solutions* , et se spécialise en gestion des opérations et des processus d'approvisionnement. Monsieur Devost détient un baccalauréat en génie de l'Université Laval ainsi qu'une maîtrise en administration des affaires de l'École des Hautes Études Commerciales de Montréal.

Depuis son arrivée au sein de notre cabinet en 1985, Monsieur Devost a joué un rôle clé dans la réalisation de nombreux mandats en gestion des approvisionnements, de processus d'appels d'offres et d'études de faisabilité de partenariat et de sous-traitance dans les secteurs public, parapublic et privé.

GESTION DE L'APPROVISIONNEMENT ET DES APPELS D'OFFRES

- Révision de la politique et des procédures relatives à la gestion des approvisionnements et du processus d'appel d'offres afin de recommander de nouvelles pratiques d'affaires permettant d'optimiser les achats et de réduire les coûts d'exploitation pour le compte de plusieurs organismes et entreprises.

- Réalisation d'une étude de faisabilité du transfert au secteur privé de la gestion des opérations des usines de traitement des eaux usées pour le compte d'une importante municipalité du Québec (i.e. de la gestion en régie à la gestion et approvisionnement délégués à l'entreprise privée). Par la suite, élaboration des documents d'appel d'offres et coordination du travail de la direction des approvisionnements, des services juridiques et de l'ingénierie et services techniques afin de procéder à l'appel d'offres auprès des soumissionnaires potentiels et à l'évaluation des propositions reçues.

- Transformation du processus d'approvisionnement et de gestion des appels d'offres dans le but d'améliorer le niveau de service aux requérants ainsi que le niveau d'économies d'administration et d'acquisition pour le compte de plusieurs organismes des secteurs parapublic et privé. Ces projets consistaient à mettre sur pied des ententes de partenariat avec des fournisseurs privilégiés et à modifier les façons de faire du personnel affecté à la réalisation de ce processus.
- Support à l'implantation de partenariats avec des fournisseurs privilégiés à partir de l'élaboration de la vision, des objectifs, des opportunités de partenariat, de leur impact prévu et requis afin d'optimiser le niveau de service aux utilisateurs ainsi que le niveau d'économies d'administration et d'acquisition.
- Révision des pratiques de gestion de projets d'entreprises des secteurs privé et parapublic. L'objectif de ces études consistait à identifier les forces et faiblesses des systèmes et pratiques de gestion en place et d'identifier des opportunités d'amélioration, à partir des meilleures pratiques de gestion de projets touchant les systèmes, l'organisation, la technologie et les infrastructures.

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Curriculum vitae

PIERRE DEVOST, ing., MBA, CMC, DIRECTEUR PRINCIPAL (suite)

- Rédaction d'un guide à l'intention des gestionnaires de contrats d'aéroports portant sur les procédures et les méthodes à utiliser dans le but d'évaluer les possibilités de «faire faire» certains travaux effectués en régie pour le compte de Transports Canada.

- Identification des opportunités de partenariats avec le secteur privé pour l'exploitation de complexes intégrés d'entretien de flottes de véhicules et sollicité des déclarations de compétences auprès du secteur privé pour le compte d'une important municipalité.

HYDRO-QUÉBEC

- Réalisation d'une étude de balisage (benchmarking) des applications informatiques et des technologies utilisées dans le domaine des achats et de la gestion des stocks dans l'industrie des utilités publiques. Les objectifs étaient de réaliser une analyse comparative des systèmes d'information et des tendances en matière de nouvelles technologies émergentes (EDI, catalogues imagés, codes à barres, etc.).

- Vérification des pratiques de gestion de projet lors de la construction du complexe hydroélectrique LG-1. L'objectif de l'étude consistait à identifier les forces et faiblesses des systèmes et pratiques de gestion en place en matière de : planification générale et contrôle de l'échéancier; gestion des contrats; et, inspection et contrôle de la qualité.

- Revue des services auxiliaires des secteurs nordiques de la région La Grande et en particulier, l'exploitation des bâtiments, l'entretien de la flotte de véhicules, les pratiques relatives à la gestion des approvisionnements et des inventaires et ce, afin d'identifier la problématique en régions éloignées.

- Réalisation d'une étude relative à la tarification du réseau électrique autonome au Québec et comparaison avec les réseaux autonomes des autres provinces canadiennes. L'objectif de cette analyse était de déterminer les écarts en matière de tarification avec les autres provinces canadiennes et leur impact sur le niveau de subventions accordées à ces communautés de façon à développer une stratégie de tarification visant à réduire les pertes à ce chapitre tout en respectant l'équité inter-provinciale.

Avant de se joindre à notre cabinet, Monsieur Devost a acquis une vaste expérience en gestion de contrats d'ingénierie dans les domaines de la planification, de l'exécution et du contrôle de la qualité, des échéanciers et des coûts d'investissements en immobilisation pour de grands projets de construction hydroélectriques.

Monsieur Devost est membre de l'Ordre des ingénieurs du Québec et membre de l'Institut des conseillers en management du Québec.

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Curriculum vitae

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A Management Consultant with a diverse background in the energy field. Areas of expertise include strategic planning, energy supply/demand forecasting and planning, competitive fuels analysis, risk management, rate analysis and expert testimony, regional energy market analysis, and project economic and financial analysis. Focus on electric, gas and renewable resource industries

PROFESSIONAL EMPLOYMENT

2000-present		**Merrimack Energy Group,** Principal
1988-2000		**Navigant Consulting, Inc.** (formerly Reed Consulting Group, Inc.) Managing Director
1999		**Babson College**, Adjunct Professor, Finance Department
1984-1988		**R.J. Rudden Associates, Inc.** Senior Consultant
1983-1984		**Massachusetts Executive Office of Energy Resources** Consultant
1981-1983		**Algonquin Gas Transmission Company** Corporate Planner
1980-1981	**and**	**Massachusetts Executive Office of Energy Resources -- Analysis Regulations Program** Assistant Director
1978-1980		**New England Regional Commission -- Energy Policy Analysis Program** Coordinator/Senior Economist

PROFESSIONAL EXPERIENCE

Utility Restructuring
Managed several projects for electric and gas utilities on industry restructuring and unbundling initiatives.

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Presented seminars to utilities, trade organizations and conferences on electric utility restructuring strategies and implementation.

Advised senior management of electric utilities on evaluating and developing strategies enhancing the value of the utility's assets. Also assisted several utilities in the development of GENCO strategies.

Renewable Resources
Developed renewable resource RFPs and assisted in bid evaluation for Central Power & Light Company (wind only RFP), Public Service Company of Oklahoma, Southwestern Electric Power Company, West Texas Utilities, Hawaiian Electric Company, and Northern States Power (Technical Advisor).

Chaired two major conferences on green pricing initiatives and renewable resource development.

Competitive Energy Pricing
Negotiated several special contracts between utilities and customers.

Developed a market price evaluation methodology and pricing process for a large electric utility for wholesale and retail marketing initiatives.

Developed approach for resource procurement in a competitive electric market based on portfolio design, which incorporates short and long term resources, flexible contract provisions and options.

Risk Management

Conducted seminars for utilities on the use of risk management techniques and financial derivatives to hedge risks, including the use of options, futures and swaps. Applied financial option techniques in the development of physical option arrangements.

Developed a risk management strategy for a major electric utility to hedge its fuel and power trading price risk.

Fuel Supply Acquisition Strategy and Procurement
Assisted several LDCs and electric utilities with gas procurement activities including direct purchases from suppliers. Activities included development of a supply portfolio plan, design of an RFP for gas supplies, assessment of the need for price and nomination flexibility for contracting, development of the evaluation criteria, and review and evaluation of proposals submitted. Participated in RFP's for both U.S. and Canadian supplies. Responsible for the evaluation of over 100 proposals for gas supply.

Assisted independent power producers and cogenerators with development of fuel purchase strategies, and implementation of the strategy including identifying producers, suggesting a course

of action and negotiation of the fuel purchase contracts and transportation pricing terms and conditions.

Completed gas procurement strategies and portfolio designs for several electric utilities. Responsibilities included evaluating pipeline and storage options, developing a procurement strategy, and recommending a course of action. The projects involved integrating the production cost and operations of the generation units with gas supply and transportation contracting considerations to develop a least cost strategy.

Power Procurement/Competitive Bidding

Assisted a number of utilities in the development and implementation of competitive bidding processes and associated RFPs for long-term supply-side resources, renewable resources, option contracts, distributed resources and demand-side resources.

Directed a major study for a large electric utility involving the development of a viability methodology for assessing non-utility generation projects. The approach involved the use of Critical Path methodology to assess project status and probability of success.

Project Manager for multi-discipline project team serving as third-party evaluator on the power solicitation proposals submitted in response to Delmarva Power, Baltimore Gas and Electric and Duke Power's RFPs for power supplies.

Project Manager responsible for designing and developing supply side RFPs for several electric utilities including Boston Edison, Central and South West Services, Inc., Commonwealth Edison Company, Duke Power, Carolina Power & Light, and Hydro-Quebec.

Conducted seminars on the design and evaluation of resource procurement programs for Hydro-Québec, Duke Power Company, Hawaiian Electric Company, Ohio Edison and Korea Electric Power Company.

Assisted in the preparation of power supply bids on behalf of utility and non-utility clients for five utility solicitations.

Assisted several utilities with the design and development of an evaluation methodology and development of contract terms for RFP's for Power Options.

Energy Market and Economic Policy Studies

Conducted a number of studies for utility and non-utility clients on the market for power in various regions of the US and in Canada.

Completed a major study for the Government of Canada assessing the economic viability of the New England electric utility market for Canadian power exports. Study included analysis of the market for power, economics of competitive supply sources, transmission capacity issues, and regulatory and institutional factors.

Annexe D

Curriculum vitae

Directed merchant power study for an Independent Power Producer assessing the market price of power for the uncommitted capacity from the project as a form of merchant power. Study components included analysis of the competitive market price in both the short and long term, definition of need for capacity and energy, risk assessment of key market factors, and project dispatch analysis.

Assisted in the completion of a gas market study for a proposed natural gas pipeline project assessing the potential of the Northeast market for Canadian gas.

Conducted several market studies and power price forecasts in support of due diligence efforts for acquisition of power generation assets.

Strategic Planning and Analysis

Assisted in a strategic planning study for a major international coal company with the goal of developing strategies to increase market share within the electric power industry.

Completed a strategic planning study for a major electric utility assessing the opportunities for the company in the changing natural gas market, including fuel purchasing strategies, and gas fired cogeneration and combined cycle opportunities.

Prepared economic forecasts and strategic plans for a gas transmission company.

Conducted several seminars for senior management of pipeline companies and electric utilities on opportunities and challenges for gas use in electric generating facilities.

Assisted several local gas distribution companies with development and implementation of gas supply/transportation procurement strategies in response to FERC Order No. 636.

Forecasting and Modeling

Managed the development of a monthly demand forecasting model for each rate class for LDCs using both econometric and end-use modeling techniques as part of its integrated resource planning process.

Developed integrated planning and forecasting system for a small electric utility. The system was comprised of production cost, generation planning, cost of service, demand forecasting and rate design modules.

Assisted in econometric research study of the capital structure of a large combination utility.

Developed an electric rate forecasting model integrating production cost projections with a cost-of-service model for a large industrial client for purposes of projecting the electricity costs for the utility over a five-year time horizon.

Annexe D

Curriculum vitae

Cost of Service/Rate Design

Submitted testimony before the Federal Energy Regulatory Commission on pipeline rate and cost allocation issues in Penn York Energy Corporation and Great Lakes Gas Transmission Limited Partnership rate cases.

Replicated and critiqued several electric and gas cost of service models for rate case intervention dealing with cost allocation, revenue requirements and rate design issues.

Conducted analysis, prepared and assisted in testimony preparation for a number of gas pipeline and storage rate cases before the Federal Energy Regulatory Commission.

Financial Analysis

Assisted several utilities in the financial analysis of distributed resources for the purposes of establishing a DG business unit.

Assisted in the preparation of a financial and economic feasibility study of a cogeneration project for a consortium of banks.

Completed risk assessment study of the power supply agreement and market for power for a cogeneration project located in New England. The study was conducted for a major Boston bank.

Prepared several financial prefeasibility studies of proposed cogeneration projects for utilities, independent power producers and industrials.

Directed several studies on power needs and competitive costs of power supply options for large independent power producers for project applications before regulatory authorities.

EDUCATION

Northeastern University, Completed Doctoral Course work, Economics, 1977
Northeastern University, M.A., 1976
Assumption College, B.A., 1973

OTHER

Past Chairman, Massachusetts Natural Gas Task Force.

Adjunct Professor, Department of Finance, Babson College; Courses taught include Risk Management, Options and Futures

Instructor/Lecturer, Department of Economics, Northeastern University; Statistics, Energy Economics, Forecasting Techniques, International Economics.