Ontario

INFRASTRUCTURE ONTARIO

VALUE FOR MONEY ASSESSMENT

NIAGARA HEALTH SYSTEM'S NEW HEALTH-CARE COMPLEX

Deloitte.

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May 8, 2009

Private and confidential

Mr. Steven Richards
Infrastructure Ontario
777 Bay Street, Suite 900
Toronto ON M5G 2C8

Dear Mr. Richards

Subject: Re: Value for Money Analysis at Financial Close – Niagara Health System Project

Deloitte & Touche LLP ("Deloitte" or "We") has prepared the Value for Money ("VFM") assessment for the Niagara Health System ("Project") at the Financial Close stage, in accordance with Infrastructure Ontario's ("IO") value for money assessment methodology outlined in *Assessing Value for Money: A Guide to Infrastructure Ontario's Methodology*, which is consistent with approaches used in other jurisdictions.

The VFM assessment is based on a comparison of the net present costs (NPC) for the Project under:

1. The traditional delivery approach, as reflected in the Public Sector Comparator (PSC) model; and
2. The Alternative Finance and Procurement approach (AFP), as reflected in the Preferred Bid.

The VFM assessment was compiled using the following information (collectively the "Information"):

i. A Risk Matrix developed for IO by Altus Helyar and adapted to reflect project specific risks for the Project; and
ii. Cost and other input assumptions extracted from the Preferred Bid.

The VFM assessment submitted to you on May 8th, 2009, demonstrates that the AFP approach will provide an estimated value savings of 8.3% (in comparison to the traditional delivery approach), using a 4.21% discount rate.

While we did not audit or attempt to independently verify the accuracy or completeness of the Information, we confirm, based on our familiarity with VFM methodologies in other jurisdictions and current market data, that IO's VFM methodology is reasonable, yields a fair estimate of value for money and that the Information has been appropriately used in the VFM Model.

Yours very truly,

Deloitte & Touche LLP

Deloitte & Touche LLP

Knowles
A Hill International Company

30 April 2009

Graham McLeod
Vice President, Project Legal Services
Infrastructure Ontario
777 Bay Street, 6th Floor
Toronto, ON M5G 2C8

Re: Niagara Health System AFP Project

Dear Graham,

Knowles Consultancy Services Inc. was retained to provide fairness advisory services for the above-mentioned project. Our role on the project was to provide advice pertaining to the fairness of the procurement processes. We were retained in 2006 and provided these services for the initial Request for Qualifications and the Request for Proposals.

The project is a development project where the two current sites of the Niagara Health System (NHS) will be consolidated onto a new site to maximize efficiency with services which replace the two present sites, the Ontario Street and Queenston Street sites, currently operating in the City of St. Catharines. The new Facility will be an approximately 375-bed publicly-owned community hospital.

Specifically, we provided advice to Infrastructure Ontario with regard to:

- Wording of the RFP document;
- Proponent Consultations;
- Adequacy of communications to Proponents;
- Adequacy of notification of changes in requirements;
- Confidentiality and security of Proposals and evaluations;
- Qualifications of the evaluation team;
- Compliance with the process;
- Objectivity and diligence respecting the evaluations;
- Proper use of assessment tools; and
- Conflict of Interest;

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In our capacity as Fairness Monitor we undertook the following tasks:

- Attended meetings with Proponents;
- Monitored communications with Proponents;
- Provided advice on the drafting of the procurement documents with a view to ensuring a fair process; and,
- Monitored the evaluation process.

In conclusion, based on our findings, we are satisfied that the Niagara Health System procurement processes were conducted in a fair, open, and transparent manner. All Proposals received were evaluated against the evaluation criteria published in the procurement documents. We detected no bias either for or against any particular Proponent in the application of the evaluation criteria.

Yours truly,
KNOWLES CONSULTANCY SERVICES INC.

Michael Killeavy, LL.B., MBA, P.Eng., ACI Arb.
Managing Consultant

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NIAGARA HEALTH SYSTEM
ARTIST'S RENDERING

Preliminary concept of the new Niagara Health System health-care complex by Plenary Health Niagara

Highlights of the new Health-Care Complex:

Square footage	Over 970,000
Number of single patient rooms	80 per cent
Infection prevention and control	• Separate hand washing sinks in each patient room • Negative pressure rooms to prevent cross-contamination • Ventilation systems to restrict flow of contaminated air • Separate elevators and corridors for patient transfers • Separate areas for clean and soiled supplies
Environmentally Sustainable Design	Building will be LEED Certified

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Summary

ReNew Ontario 2005-2010 is a $30-billion-plus strategic infrastructure investment plan to modernize, upgrade and expand Ontario's public infrastructure.

A *ReNew Ontario* Progress Report was released in July 2007 and is available at www.ontario.ca/mei.

Infrastructure Ontario is an essential component of the *ReNew Ontario* plan. The Crown Corporation ensures that new infrastructure projects are delivered on time and on budget.

The Niagara Health System's (NHS) new health-care complex in St. Catharines is being delivered under the Province's Alternative Financing and Procurement (AFP) model.

The 375-bed facility will be located at First Street and Fourth Avenue in west St. Catharines. It will replace the aging St. Catharines General and Ontario Street Sites. Serving St. Catharines, Thorold, Niagara-on-the-Lake and surrounding communities, the new facilities will provide acute/critical care, surgical, emergency, longer-term mental health and ambulatory services.

The new, state-of-the-art health care complex will also accommodate new regional services that have never been available in Niagara, including facilities for comprehensive cancer care at the Walker Family Cancer Centre along with facilities to support cardiac catheterization and longer-term mental health.

The public sector retains ownership, control and accountability for the health-care complex, including the new facilities.

The purpose of this report is to provide a summary of the project scope, the procurement process and the project agreement, and to demonstrate how value for money was achieved by delivering the NHS project through the AFP process.

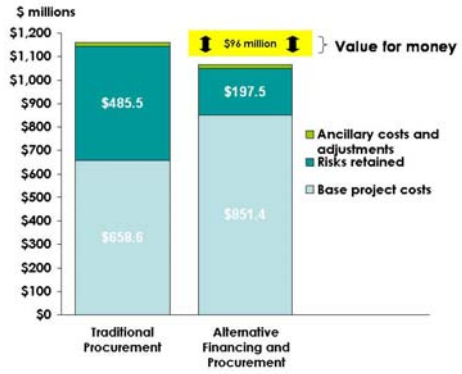
The value for money analysis refers to the process of developing and comparing the total project costs under two different delivery models expressed in dollar values measured at the same point in time.

Value for money is determined by directly comparing the cost estimates for the following two delivery models:

Model #1 **Traditional project delivery (Public sector comparator)**	**Model #2** **Alternative financing and procurement**
Total project costs that would have been incurred by the public sector to deliver an infrastructure project under traditional procurement processes.	Total project costs incurred by the public sector to deliver the same infrastructure project with identical specifications using the AFP approach.

The cost difference between model #1 and model #2 is the estimated value for money for this project.

The value for money assessment of the NHS project indicates estimated cost savings of 8.3 per cent or $96 million, by using the AFP approach in comparison to traditional delivery.



"We are close to fulfilling our vision of creating a state-of-the-art health-care facility and bringing new, regional health-care services closer to home. This project is generating thousands of jobs in our community, and will provide a significant boost for our local economy."
Debbie Sevenpifer, President and CEO, Niagara Health System

Deloitte & Touche LLP (Deloitte) completed the value for money assessment of the NHS project. Their assessment demonstrates projected cost savings of 8.3 per cent by delivering the project using the AFP model, versus what it would have cost to deliver the project using a traditional delivery model.

Knowles Consultancy Services Inc. (Knowles) acted as the Fairness Monitor for the project. They reviewed and monitored the communications, evaluations and decision-making processes associated with the NHS project, ensuring the fairness, equity, objectivity, transparency and adequate documentation of the process. Knowles certified that these principles were maintained throughout the procurement process (please see letter on page 3).

Infrastructure Ontario will work with NHS to build the new health-care complex, which will remain publicly owned, publicly controlled and publicly accountable.

Project description

Background

ReNew Ontario 2005-2010 is a $30-billion-plus strategic infrastructure investment plan to modernize, upgrade and expand Ontario's public infrastructure. A *ReNew Ontario* Progress Report was released in July 2007 and is available at www.ontario.ca/mei.

Infrastructure Ontario is an essential component of the *ReNew Ontario* plan. The Crown Corporation was created in 2005, to ensure that infrastructure projects are delivered on time and on budget.

Under the *ReNew Ontario* plan, projects are assigned to Infrastructure Ontario by the provincial government, which uses a made-in-Ontario project delivery model called Alternative Financing and Procurement (AFP). AFP brings private-sector expertise, ingenuity and rigour to the process of managing and renewing Ontario's public infrastructure while shifting risks associated with cost and schedule overruns away from the public sector.

Ontario's public infrastructure projects are guided by the five principles set out in the provincial government's *Building a Better Tomorrow Framework,* which include:

1. public interest is paramount;
2. value for money must be demonstrable;
3. appropriate public control and ownership must be preserved;
4. accountability must be maintained; and
5. all processes must be fair, transparent and efficient.

Niagara Health System

The Niagara Health System (NHS) consists of six hospital sites and an ambulatory care centre serving 434,000 residents across the 12 municipalities making up the Regional Municipality of Niagara.

The NHS project will result in a new, state-of-the-art health care complex that will bring new regional programs and services to Niagara and replace two aging, existing community hospitals in St. Catharines (St. Catharines General and Ontario Street Sites).

Job Creation

The project will provide a sizeable boost to the regional and Ontario economies during construction by directly and indirectly supporting and creating approximately 5,400 jobs, many of which will be in the Niagara region. At the peak of construction over 1000 workers will be on site daily.

Project Scope

The new health care complex to be built at First Street and Fourth Avenue in St. Catharines will include:

- The Walker Family Cancer Centre to provide close-to-home treatment for the more than 1,200 cancer patients who currently travel to Hamilton or Toronto for life-saving radiation treatment;
- A new Regional Longer-Term Mental Health Centre with longer-term inpatient mental health beds, combined with acute inpatient mental health beds and ambulatory care services for Niagara residents;
- A new Regional Cardiac Catheterization Centre to provide diagnostic investigation services, reducing hospitalizations for heart disease, lowering wait times and improving access to treatment; and
- Acute and critical inpatient services, surgical, emergency and ambulatory services available under one roof with 375 beds for the residents of St. Catharines, Thorold, Niagara-on-the-Lake and the area.

Competitive selection process timeline

NHS has entered into a project agreement with Plenary Health Niagara to design, build, finance and maintain the project. The procurement stages for the project were as follows:

November 14, 2006

Request for Qualifications

In 2006, NHS and Infrastructure Ontario issued a request for qualifications (RFQ) for the project. Three building teams qualified:

Hospital Infrastructure Partners Inc.

- Carillion Canada
- EllisDon Corporation
- LPF Infrastructure Fund (Labourers' Pension Fund of Central and Eastern Ontario)
- Stantec/Murphy Hilgers Architects in Joint Venture
- Rybka, Smith and Ginsler

Plenary Health Niagara

- Plenary Group
- PCL Constructors
- Bregman + Hamann Architects and Silver Thomas International Architects
- Johnson Controls
- Deutsche Bank

Infusion Health

- Bilfinger Berger BOT
- John Laing
- Vanbots Construction
- Parkin Architects/Vermeulen-Hind Architects in Joint Venture
- Honeywell Building Solutions
- RBC Capital Markets

September 4, 2007

Request for Proposals

A request for proposals (RFP) was issued to the pre-qualified proponents, setting out the bid process and proposed project agreements to design, build, finance and maintain the project.

Proposal submission

The RFP period closed on May 13, 2008. Three bids were received by Infrastructure Ontario and NHS. The bids were evaluated using the criteria set out in the RFP.

August 8, *2008*

Preferred proponent notification

Plenary Health Niagara was selected as the successful RFP proponent based on predetermined criteria, including construction schedule, technical requirements, price, operational and management plans and financing packing, in accordance with the evaluation criteria set out in the RFP.

At this time, Plenary Health Niagara's team included Plenary Group, Borealis Infrastructure, PCL Constructors Canada Inc., Bregman + Hamann Architects, Silver Thomas Hanley Architects, and Johnson Controls.

September 24 2008

Commercial close

A project agreement was executed by Plenary Health Niagara and NHS.

March 27 2009

Financial close

Financing for Plenary Health Niagara to complete the project was finalized. Long-term debt financing was provided through the private placement market and was led by Sun Life Financial and The Great-West Life Assurance Company and included Industrial Alliance and Bimcor. TD Securities Inc., RBC Capital Markets and BMO Capital Markets acted as arrangers for the long-term debt financing. Société Générale, TD Bank and Bank of Montreal provided construction financing for the project. Plenary Health Niagara and Borealis Infrastructure provided equity.

April 2009 – November 2012

Construction

Construction began following the groundbreaking held April 28, 2009. During the construction period, the builder's construction costs will be funded by its lenders in monthly instalments based on the construction program set out by PCL Constructors.

Construction will be carried out in accordance with the project agreement. The project will be

overseen by a joint building committee made up of representatives from NHS and Infrastructure Ontario.

Completion and payment

Plenary Health Niagara will receive a payment from the government at substantial completion of the new NHS health-care complex, which is expected in November 2012. This payment will be followed by monthly service payments over a 30-year period for construction of the facility, building maintenance, lifecycle repair and renewal and project financing. The Ontario government has conditionally agreed to make a construction progress payment by spring 2011 or after Plenary has applied to the project the full principal amount of debt provided by its lenders and committed the full amount of its equity, whichever comes later. The government has the option to replace the progress payments with private sector financing if market conditions improve in the future.

January 2013 – December 2042

Maintenance

Plenary Health will maintain the new health-care complex for 30 years and be responsible for building maintenance, repair and lifecycle replacement during that period.

Hospital Capital Funding

The provincial government's hospital capital funding policy announced in June 2006 simplifies the Ministry of Health and Long-Term Care's funding formula. In the past, the Ministry's capital cost share rates varied from 50 per cent to 80 per cent, depending on the project. The provincial government's portion of the construction costs now equals 90 per cent of eligible construction costs.

Hospitals are responsible for 10 per cent of the eligible construction costs, otherwise known as their local share, as well as 100 per cent of the costs associated with the purchase of new and replacement equipment. Radiation treatment equipment is 100 per cent funded by the Ministry of Health and Long-Term Care.

Project agreements

Legal and commercial structure

NHS entered into a project agreement with Plenary Health Niagara, comprising approximately 44-months of construction and a 30-year maintenance timeframe. Under the terms of the project agreement, Plenary will:

- design and build the NHS project;
- finance the construction and capital costs of the health-care complex over the term of the project;
- obtain a third-party independent certification that the new health-care complex is built;
- provide facility management and lifecycle maintenance for the new health-care complex for the 30-year service period under pre-established maintenance performance standards in the project agreement; and
- ensure that, at the end of the contract term, the building meets the conditions specified in the project agreement.

The NHS will make monthly payments to Plenary Health Niagara, based on performance requirements defined in the project agreement. The NHS will not commence these payments until the new health-care complex is substantially completed. Moreover, if Plenary Health Niagara does not meet the standards set in the agreement, it will face financial deductions.

Plenary Health Niagara will receive a payment from the government at substantial completion of the new NHS health-care complex, which is expected in November 2012. This payment will be followed by monthly service payments over a 30-year period for construction of the facility, building maintenance, lifecycle repair and renewal and project financing. The Ontario government has conditionally agreed to make a construction progress payment by spring 2011 or after Plenary has applied to the project the full principal amount of debt provided by its lenders and committed the full amount of its equity, whichever comes later. The government has the option to replace the progress payments with private sector financing if market conditions improve in the future.

All Ontario hospitals will continue to be publicly owned, publicly controlled and publicly accountable. Medical services in hospitals will continue to be publicly funded and publicly administered – this is non-negotiable for the Government of Ontario and more importantly, for the people of Ontario.

The building and maintenance team will be granted a licence to access the site and health-care complex in order to provide the construction and facility maintenance services over the term of the agreement. However, as noted above, the new health-care complex will at all times remain publicly owned and the building and maintenance team are contractually bound to follow the terms of the project agreement.

Facility management and maintenance

Facility management

Services associated with the day-to-day management of the physical facility, such as maintaining the elevator, electrical and mechanical systems, ventilation systems and other similar maintenance work.

Lifecycle maintenance

Lifecycle maintenance represents the total cost of replacing, refurbishing and refreshing building structure and systems over their useful life. With respect to this project, "lifecycle costs" will involve the replacement of the facility's base building elements that have exceeded their useful life (e.g., floor finishes and certain mechanical and electrical components); these components must be left in a state acceptable to the government at the completion of the 30-year maintenance agreement. Lifecycle costs are typically capital costs.

Construction and completion risk

All construction projects have risks. Some project risks are retained in varying magnitude by the public sector. Examples of risks retained by the public sector under either the AFP or traditional model include planning, unknown site conditions, changes in law, public sector initiated scope change, and force majeure (shared risk).

Under the AFP model, some key risks that would have been retained by the public sector are contractually transferred to Plenary Health Niagara. On a traditional project, these risks and resource availability can lead to cost overruns and delays. Examples of risks transferred to the private sector under the AFP project agreement include:

Construction price certainty

Plenary Health Niagara will finance and construct the new health-care complex. Plenary Health Niagara will receive a payment from the government at substantial completion of the new NHS health-care complex, which is expected in November 2012. This payment will be followed by monthly service payments over a 30-year period for construction of the facility, building maintenance, lifecycle repair and renewal and project financing. The Ontario government has conditionally agreed to make a construction progress payment by spring 2011 or after Plenary has applied to the project the full principal amount of debt provided by its lenders and committed the full amount of its equity, whichever comes later. The government has the option to replace the progress payments with private sector financing if market conditions improve in the future.

Plenary Health Niagara's payment may only be adjusted in very specific circumstances, agreed to in advance and in accordance with the detailed variation (or change order) procedures set out in the project documents.

Scheduling, project completion and delays

Plenary Health Niagara has agreed to reach substantial completion of the facilities by November 2012.

The construction schedule can only be modified in very limited circumstances, in accordance with the project agreement. Plenary Health Niagara's final payment will not commence until substantial completion (i.e., until it has completed building the new health-care complex and it has been certified as complete by an independent consultant).

Costs associated with delays that are the responsibility of Plenary Health Niagara must be paid by Plenary Health Niagara.

Site conditions and contamination

Plenary Health Niagara accepted the site and the site conditions and shall not be entitled to make claims against NHS on any grounds relating to the site. Furthermore, Plenary Health Niagara shall be responsible for remediation of any contamination at the site that was disclosed in or could have been reasonably anticipated from the environmental report or any of the geotechnical reports, or that is caused by Plenary Health Niagara or any of its parties.

Development approvals

Plenary Health Niagara is responsible for applying, obtaining, maintaining, renewing and complying with all development approvals.

Mechanical and electrical systems responsibility

Plenary Health Niagara shall be responsible for:

- any issues with respect to the functionality, durability, maintainability and lifecycle cost of the mechanical and electrical systems specified in their design, including whether such systems will be adequate to meet the output specifications on a consistent basis for the duration of the operational term; and

- the operation and periodic replacement of all elements of the facility, whether part of the mechanical and electrical systems or otherwise, including finishes, seals, structural components, hardware and building fabric, as required to achieve the output specifications for the duration of the operational term.

Construction financing

Plenary Health Niagara is required to finance the construction of the project until the new health-care complex is substantially complete and the NHS can occupy the facility. Plenary Health Niagara will be responsible for all increased financing costs should there be any delay in Plenary Health Niagara reaching substantial completion. This shifts significant financial risk to Plenary Health Niagara in the case of late delivery.

Commissioning and facility readiness

Plenary Health Niagara must achieve a prescribed level of commissioning of the new health-care complex at substantial completion and must co-ordinate the commissioning activity within the agreed-upon construction schedule. This ensures that the NHS will receive a functional building facility at the time payments to Plenary Health Niagara commence. Plenary Health Niagara will work closely with the NHS to facilitate transition from the existing facilities to the new facility.

Activity protocols

Plenary Health Niagara and Infrastructure Ontario have established a schedule for project submittals taking into account the time for review needed by Infrastructure Ontario's compliance architect.

This protocol mitigates against Plenary Health Niagara alleging delay as a result of an inability to receive responses in a timely manner in the course of the work.

Change order protocol

In addition to the variation procedure set out in the project documents, Infrastructure Ontario's protocols set out the principles for any changes to the project work/scope during the construction period, including:

- requiring approval and processing of change orders from NHS;
- specifying the limited criteria under which change orders will be processed and applied;
- timely notification of change orders to Infrastructure Ontario;
- approval by Infrastructure Ontario for owner-initiated scope changes;
- approval by Infrastructure Ontario for any change orders which exceed pre-determined thresholds; and
- approval by Infrastructure Ontario when the cumulative impact of the change orders exceed a pre-determined threshold.

Facilities maintenance risk

As part of the project agreement, key risks associated with the maintenance responsibility (including life-cycle renewal) of the new health-care complex over the 30-year service period have been transferred to Plenary Health Niagara. Plenary Health Niagara's maintenance of the building's lifecycle repair and renewal must meet the performance requirements set out in the project agreement. Under the project agreement, Plenary Health Niagara faces deductions to its monthly payments if it does not meet its performance obligations.

In addition to the transfer of the above key risks to Plenary Health Niagara under the project documents, the financing arrangement entered into between Plenary Health Niagara and its lenders ensures that the project is subject to additional oversight, which may include:

- an independent budget review by a third-party cost consultant;
- monthly reporting and project monitoring by a third-party cost consultant; and
- the requirement that prior approval be secured for any changes made to the project budget in excess of a pre-determined threshold.

Achieving value for money

For NHS, Deloitte's value for money assessment demonstrates a projected cost savings of 8.3 per cent, or $96 million, by using the alternative financing and procurement (AFP) approach, as compared to the traditional procurement approach.

Deloitte was engaged by Infrastructure Ontario to independently assess whether – and, if so, the extent to which – value for money will be achieved by delivering this project using the AFP method. Their assessment was based on the value for money assessment methodology outlined in *Assessing Value for Money: A Guide to Infrastructure Ontario's Methodology*, which can be found at www.infrastructureontario.ca. The approach was developed in accordance with best practices used internationally and in other Canadian provinces, and was designed to ensure a conservative, accurate and transparent assessment. Please refer to the letter from Deloitte on page 2.

Value for money concept

The goal of the AFP approach is to deliver a project on time and on budget and to provide real cost savings for the public sector.

The value for money analysis compares the total estimated costs, expressed in today's dollars and measured at the same point in time, of delivering the same infrastructure project under two delivery models - the traditional delivery model (public sector comparator or "PSC") and the AFP model.

Model #1 Traditional project delivery (Public sector comparator)	Model #2 Alternative financing and procurement
Total project costs that would have been incurred by the public sector to deliver an infrastructure project under traditional procurement processes.	Total project costs incurred by the public sector to deliver the same infrastructure project with identical specifications using the AFP approach.

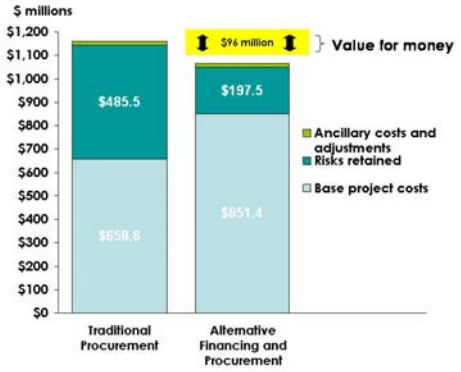
The cost difference between model #1 and model #2 is referred to as the value for money. If the total cost to deliver a project under the AFP approach (model #2) is less than the total cost to deliver a project under the traditional delivery approach (model #1), there is said to be positive value for money. The value for money assessment is completed to determine which project delivery method provides the greatest level of cost savings to the public sector.

The cost components in the VFM analysis include only the portions of the project costs that are being delivered using AFP. Project costs that would be the same under both models, such as land acquisition costs, furniture, fixtures and equipment, are excluded from this VFM calculation.

The value for money assessment is developed by obtaining detailed project information and input from multiple stakeholders, including internal and external experts in hospital project management and construction project management.

Components of the total project costs under each delivery model are illustrated below:

The value for money assessment of the NHS project indicates estimated cost savings of 8.3 per cent or $96 million, by using the AFP approach in comparison to traditional delivery.



It is important to keep in mind that Infrastructure Ontario's value for money calculation methodology does not attempt to quantify a broad range of qualitative benefits that may result from using the AFP delivery approach. For example, the use of the AFP approach will more likely result in a project being delivered on time and on budget. The benefits of having a project delivered on time cannot always be accurately quantified. It would be difficult to put a dollar value on the people of Ontario gaining access to an expanded health care facility sooner than would be the case with a traditionally delivered project.

These qualitative benefits, while not expressly quantified in this value for money analysis, are additional benefits of the AFP approach that should be acknowledged.

Value for money analysis

For a fair and accurate comparison, the traditional delivery costs and AFP costs are present-valued to the date of financial close to compare the two methods of delivering a design, build, finance and maintain project at the same point in time. It is Infrastructure Ontario's policy to use the current public sector rate of borrowing for this purpose to ensure a conservative and transparent analysis. For more information on how project costs are time-valued and the value for money methodology, please refer to *Assessing Value for Money: A Guide to Infrastructure Ontario's Methodology*, which is available online at www.infrastructureontario.ca.

Base costs

Base project costs are taken from the price of the contract signed with Plenary Health Niagara, and include all construction, maintenance and financing costs. The base costs between AFP and the traditional delivery model mainly differ as follows:

1. Under the AFP model, the private party charges an additional premium as compensation for the risks that the public sector transfers to them under the AFP project documents. In the case of traditional delivery, the private party risk premium is not included in the base costs as the public sector retains these risks.
2. The financing rate that the private sector is charged under AFP is higher than the financing rate of the public sector and is not included in the traditional delivery base costs.

In the case of the AFP model, the base costs are extracted from the price agreed among the parties under the project agreement. For the NHS project, these were $851.4 million.

If the traditional model had been used for the NHS project, base costs are estimated to be $658.6 million.

Risks retained

Historically, on traditional projects, the public sector had to bear costs that go beyond a project's base costs because of the contingencies necessary developed to respond to the project risks.

Project risks are defined as potential adverse events that may have a direct impact on project costs. To

the extent that the public sector retains these risks, they are included in the estimated project cost.

The concept of risk transfer and mitigation is key to understanding the overall value for money assessment. To estimate and compare the total cost of delivering a project under the traditional delivery versus the AFP method, the risks borne by the public sector (which are called "retained risks") should be identified and accurately quantified.

Comprehensive risk assessment not only allows for a fulsome value for money analysis, but also helps Infrastructure Ontario and the public sector sponsors to determine the party best able to manage, mitigate and/or eliminate the project risks and to appropriately allocate those risks under the project documents.

Under the traditional delivery method, the risks retained by the public sector are significant. As discussed on pages 12-13, the following are examples of risks retained by the public sector under the traditional delivery method that have been transferred under the project agreement to Plenary:

- design compliance with the output specifications;
- construction price certainty;
- scheduling, project completion and potential delays;
- design co-ordination;
- site conditions and contamination;
- development approvals;
- design and lifecycle responsibility;
- mechanical and electrical systems responsibility;
- construction financing;
- schedule contingency;
- coordination of equipment procurement installation;
- commissioning and facility readiness; and
- activity protocols.

Examples of these risks include:

- *Design coordination/completion:* Under the AFP approach, the builder is responsible for design coordination activities to ensure that the facility is constructed in full accordance with the design in the project agreement. The builder is responsible for inconsistencies, conflicts, interferences or gaps in these design documents, particularly in the plans drawings and specifications; and for design completion issues that are specified in these design documents but erroneously left out.
- *Scheduling, project completion and delays:* Under the AFP approach, the builder has agreed that it will provide the facility for use by the Niagara Health System by a fixed date and at a pre-determined price. Therefore, any extra cost (financing or otherwise) incurred as a result of a schedule overrun caused by the builder will not be paid by the Niagara Health System, thus providing the builder a clear motivation to maintain the project's schedule. Further oversight includes increased upfront due diligence and project management controls imposed by the builder and the builder's lender.

Infrastructure Ontario retained an experienced, third-party construction consulting firm, Altus Helyar, to develop a template for assessing the project risks that the public sector relinquishes under AFP compared to the traditional approach. Using data from actual projects as well as its own knowledge base, the firm established a risk profile under both approaches for infrastructure facilities.

It is this generic risk matrix that has been used for validating the risk allocation for the specific conditions of the NHS project.

Using the AFP model reduces these results to the public sector. For example, had this project been delivered using the traditional approach, design coordination risks that arise would be carried out through a series of change orders issued during

construction. Such change orders would, therefore, be issued in a non-competitive environment, and would typically result in a significant increase in overall project costs for the public sector.

The added due diligence brought by the private party's lenders, together with the risk transfer provisions in the project documents result in overall cost savings as these transferred risks will either be better managed or completely mitigated by Plenary Health Niagara.

A detailed risk analysis of the NHS project concluded that the average value of project risks retained by the public sector under traditional delivery is $485.5 million. The analysis also concluded that the average value of project risks retained by the public sector under the AFP delivery model decreases to $197.5 million. This is a savings of $288 million for Ontario taxpayers.

For more information on the risk assessment methodology used by Infrastructure Ontario, please refer to Altus Helyar's Risk Assessment Template DBFM projects, available at www.infrastructureontario.ca.

Ancillary costs and adjustments

There are significant ancillary costs associated with the planning and delivery of a large complex project that vary depending on the project delivery method.

For example, there are costs related to each of the following:

- *Project management:* These are essentially fees to manage the entire project. Under the AFP approach, these fees will also include Infrastructure Ontario costs.
- *Transaction costs:* These are costs associated with delivering a project and consist of legal, fairness and transaction advisory fees. Architectural and engineering advisory fees are also incurred to ensure the facility is being designed and built according to the output specifications.

The ancillary costs are quantified and added to both models for the value for money comparison assessment. Both project management and transaction costs are likely to be higher under AFP given the greater degree of up-front due diligence. The ancillary costs for the NHS project under the traditional delivery method are estimated to be $5.9 million as compared to $16.1 million under the AFP approach.

An adjustment is made when estimating costs under traditional delivery. This adjustment is referred to as competitive neutrality and accounts for items such as taxes paid under AFP that flow back to the public sector and are not taken into account under the traditional model, and private sector insurance premiums that can be used as a proxy for valuing insurance costs when the public sector self-insures under the traditional method. In the case of the NHS project, this adjustment is made by adding $11 million to the traditional delivery costs (i.e. on the PSC side).

For a detailed explanation of ancillary costs, please refer to *Assessing Value for Money: A Guide to Infrastructure Ontario's Methodology*, which is available online at www.infrastructureontario.ca

Calculating value for money

The analysis completed by Deloitte concludes that the additional costs associated with the AFP model are more than offset by the benefits which include: a much more rigorous upfront due diligence process, reduced risk to the public sector, and controls imposed by both the lenders and Infrastructure Ontario's standardized AFP procurement process.

Once all the cost components and adjustments are determined, the aggregate costs associated with each delivery model (i.e., traditional delivery and AFP) are calculated, and expressed in Canadian dollars, as at financial close. In the case of the NHS project, the estimated traditional delivery cost (i.e. PSC) is $1.161 billion as compared to $1.065 billion under the AFP delivery approach.

The positive difference of $96 million or 8.3 per cent represents the estimated value for money by using the AFP delivery approach in comparison to the traditional delivery model.