



Serving
GOVERNMENT,
Serving
CANADIANS.

Introduction to Energy Services Acquisition Program (ESAP)

ENERGY SERVICE MODERNIZATION P3 Contract Information Session

September 21st, 2017
Real Property Services Branch
Public Services and Procurement Canada



Public Services and
Procurement Canada

Services publics et
Approvisionnement Canada

Canada 

Presentation Index

Index	
	Welcome
4 – 13	Introduction
14 – 22	Scope of the P3 contract
23 – 31	Key commercial terms
32 – 45	Procurement Process
46 – 50	Security Requirements



Welcome

- Agenda review
- Introduction of panel members
- Logistics (exits, facilities, follow up)
- La présentation et les questions en français
- Presentation (does not in any way modify the content of the RFQ)
- Respondents can submit RFIs using the process identified in RFQ





Serving
GOVERNMENT,
Serving
CANADIANS.

Introduction



Public Services and
Procurement Canada

Services publics et
Approvisionnement Canada

Canada 

Program Overview

Energy Services Acquisition Program (ESAP) is modernizing the District Energy System (DES) which provides heating and cooling services to over 80 federal buildings in the National Capital Region (>1.6M m² of floor space), accommodating 55,000+ occupants.



ESAP objectives

- Improve the Government of Canada's environmental performance
- Reduce costs of building heating and cooling operations
- Increase safety and reliability of heating and cooling operations
- Leverage private sector's innovation, capacity and expertise
- Promote growth of district energy system throughout the NCR
- Integrate an education platform as part of the system's transformation and operation
- Design Cliff CHCP to be an architectural landmark



Supporting Government Priorities

The ESAP program will help the Government of Canada to meet the following commitments:

- **Paris Agreement** committing Canada to reducing GHG emissions by 30% by 2030;
- **Federal Sustainable Development Strategy** and **Greening Government** committing to lead by example by greening government operations and reducing emissions in government buildings and fleets by 40% by 2030 at the latest; and
- **Pan-Canadian Framework on Clean Growth and Climate Change** committing to move toward smart and sustainable buildings that use less energy and open the way for using renewable energy sources



ESAP Consists of Two Stages

Stage 1 – DES Modernization

- Convert to industry-standard low temperature hot water technology (LTHW)
- Switch from steam to electric chillers
- Implement Smart Buildings data analysis to improve efficiency
- Test new carbon neutral fuels for deeper greening - pilot projects, feasibility studies

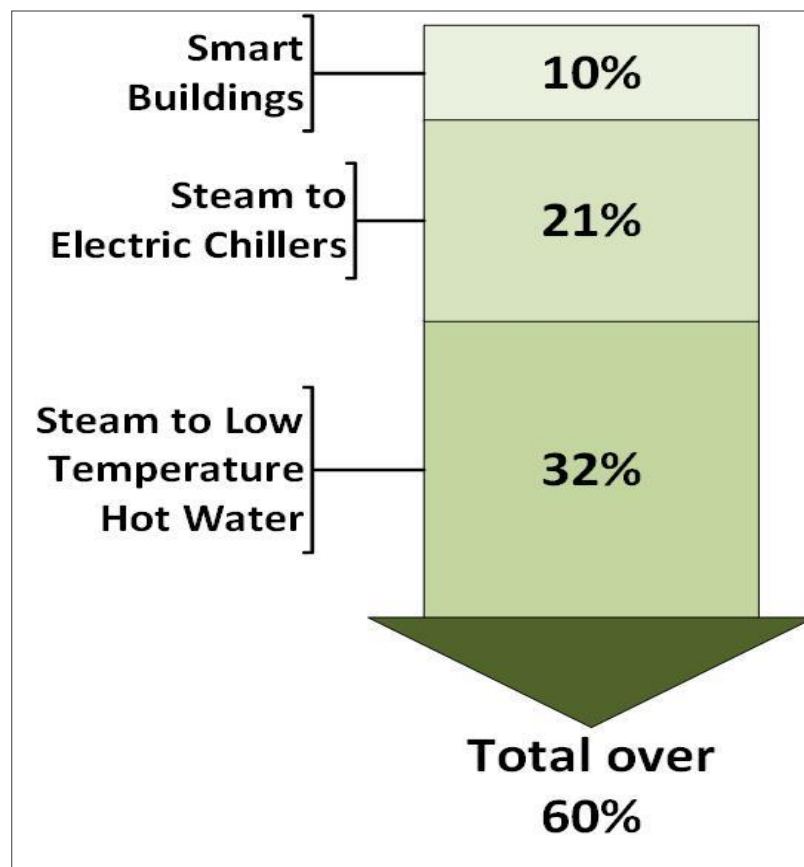
Stage 2 – Deeper Greening

- Convert base load to carbon neutral fuels – achieve **low carbon government**
- Increase the number of government buildings connected to the DES
- Expand and share carbon neutral energy with non-federal buildings in the community

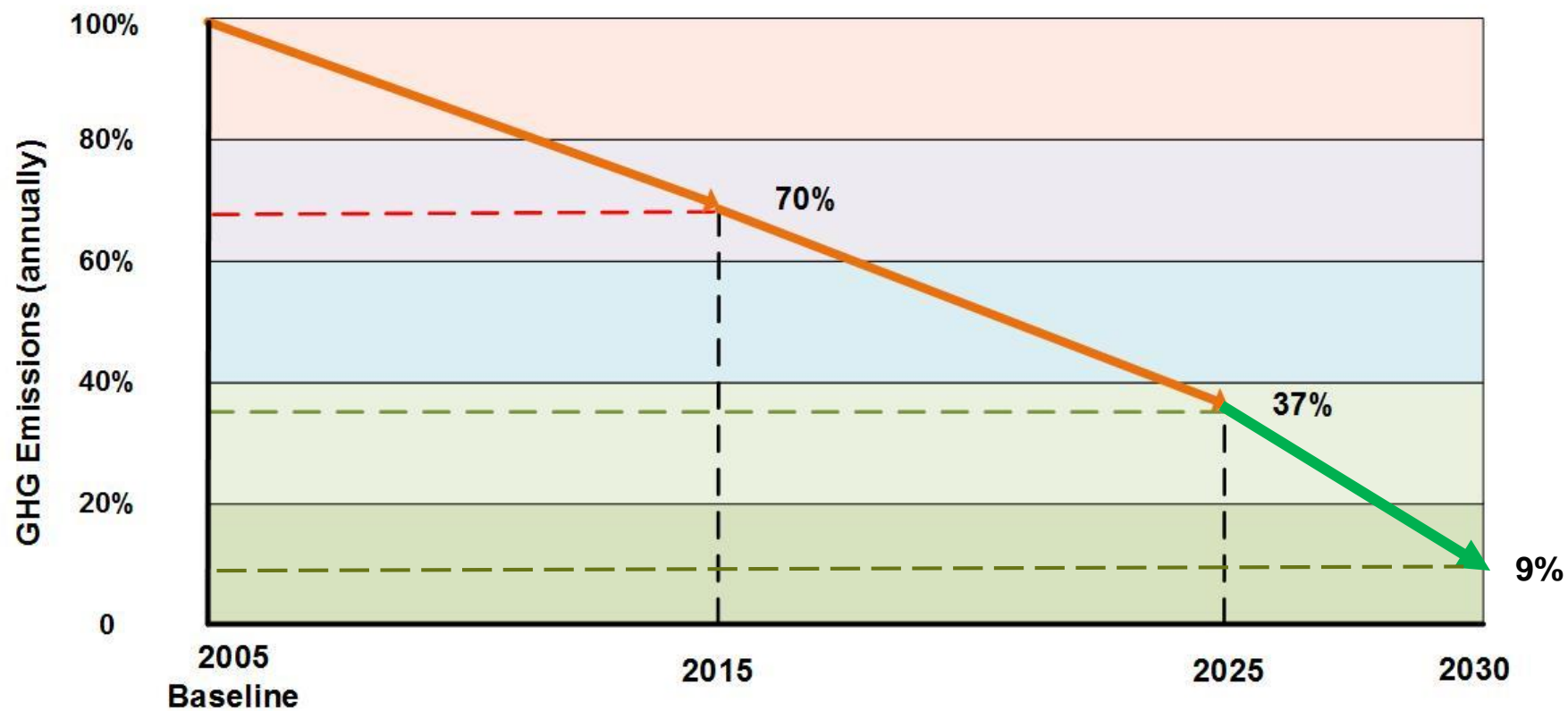


Reduction of GHG Emissions by Component

- By 2025, GHG emissions will be reduced by over 60% of our 2005 baseline emissions as a result of Stage 1



GHG Emissions Reduction Timeline – Stage 1 to 2025



Financial Commitment in 2016

- Budget 2016 committed new funding to ESAP to:
 - upgrade the aging DES to use more efficient technologies (**Stage 1**); and
 - explore using renewable sources of energy (start of **Stage 2**)
- A Treasury Board (TB) Submission was approved in December 2016



Cliff heating and cooling plant

Aesthetic Requirements

Cliff CHCP is to be an architectural landmark. Aesthetics will be an important element of the project



ESAP Project Team

- Procurement Authority: Public Services and Procurement Canada (PSPC, formerly known as PWGSC)
- Government Legal Advisor: Department of Justice (DoJ)
- Legal Advisor: Norton Rose
- Technical Team: FVB Energy, EverGreen Energy, & Stantec
- Project Management: Tiree
- Financial Advisor: PwC
- HR Advisor: E&Y





Serving
GOVERNMENT,
Serving
CANADIANS.

Scope of P3 Contract



Public Services and
Procurement Canada

Services publics et
Approvisionnement Canada

Canada

Scope of P3 Contract



Scope of P3 Contract

Private Partner's Construction Phase responsibilities

- Modernization of the District Energy System:
 - Generation assets: 5 plants → 4 plants
 - Distribution assets: 4 distribution networks → 2 networks
- Operations and maintenance of existing assets during Construction Phase
- Coordinate building connections with Canada as the LTHW building conversion process is completed



Scope of P3 Contract

Private Partner's Operation Phase responsibilities

- Operating and maintaining the DES during Construction and Operation phases
- Meeting or exceeding the targeted efficiency levels and GHG emissions reduction
- Supporting Canada with the expansion of the DES to other public and private customers in the NCR



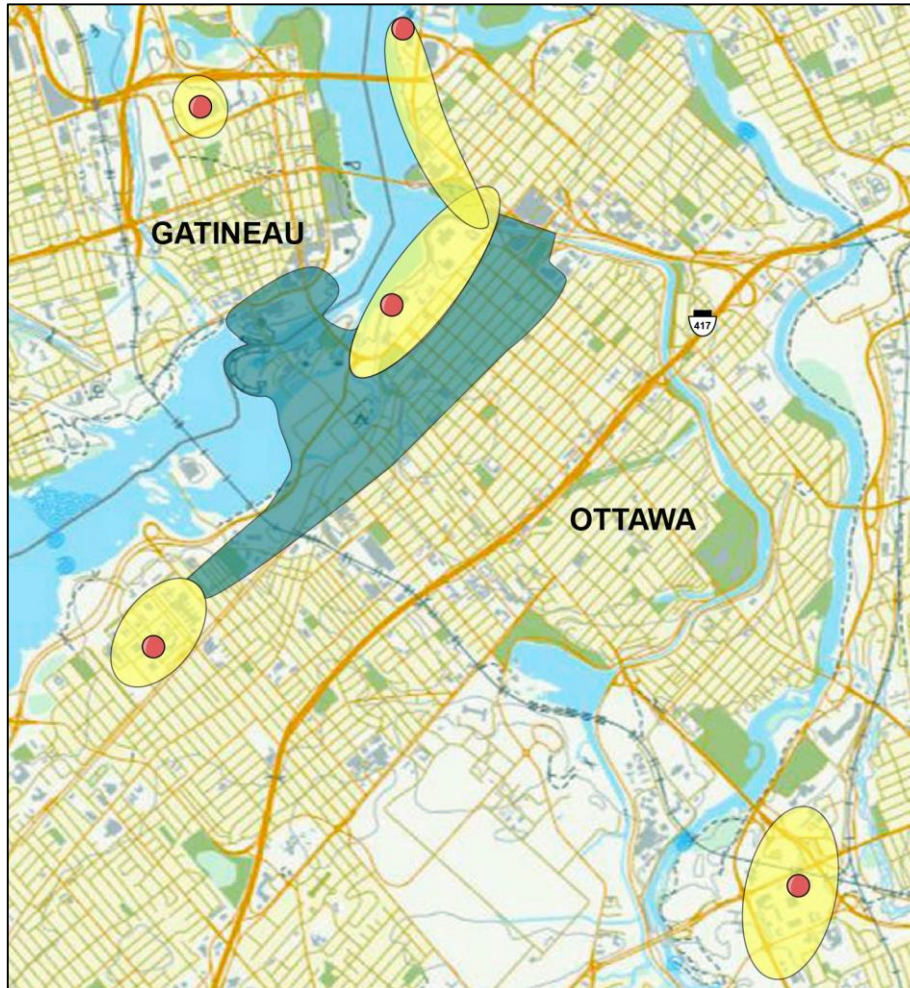
Scope of P3 Contract

Canada's responsibilities

- Undertaking the LTHW heating building conversions for all connected federal buildings
- Implementing the Smart Buildings Initiative to make Government of Canada buildings more energy efficient
- Billing and payment collection from the different customers of the district energy system
- Exploring alternative fuel options



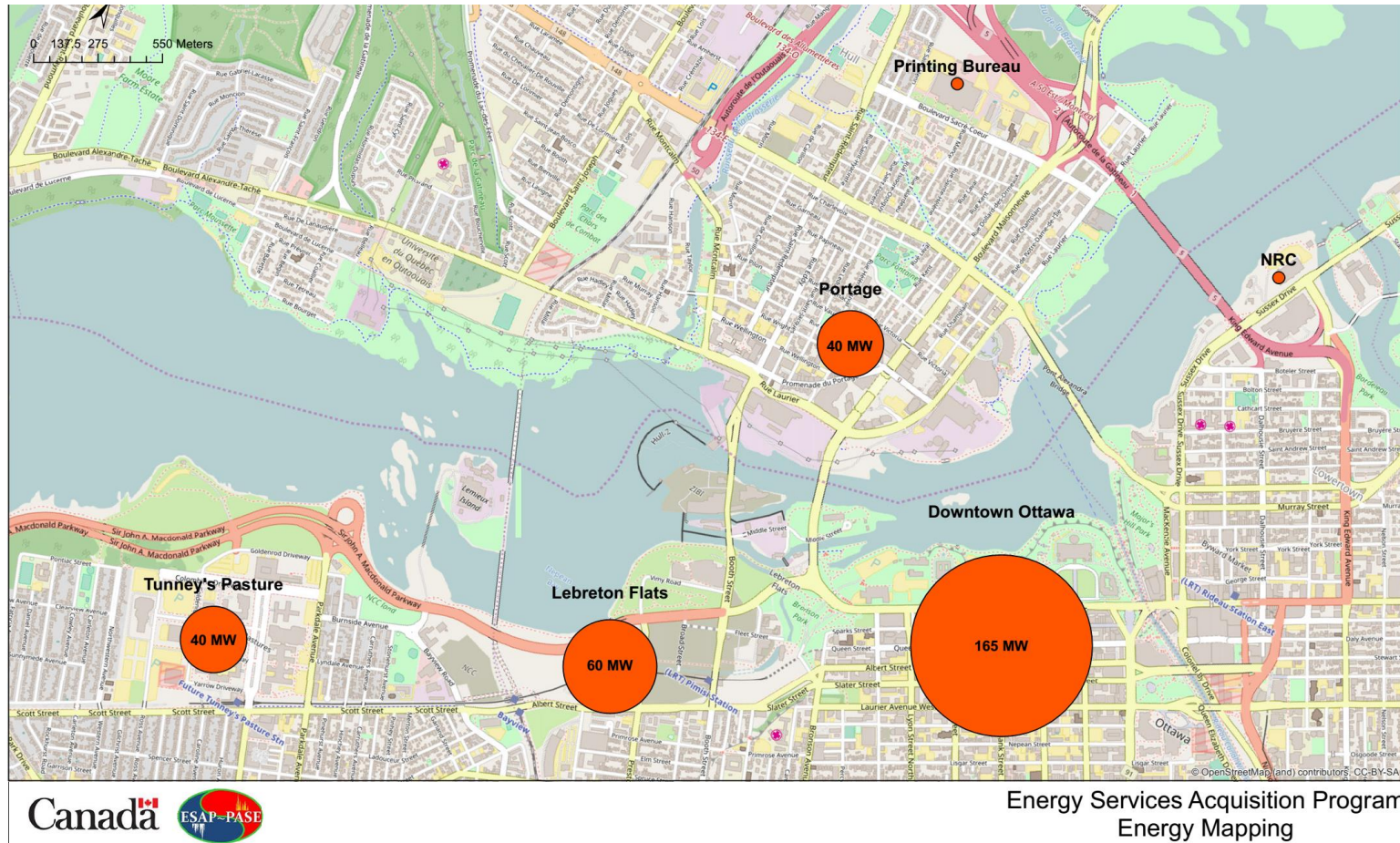
Scope of P3 Contract



Opportunity to expand the system to other users in the NCR

-  Existing PSPC DES locations
-  Potential DES Growth and Expansion

Expansion Potential



Estimated P3 Contract Value

Nominal Total (\$)	
Design and construction costs	\$700 Million
Total O&M costs	\$1,400 Million
Fixed O&M costs	\$500 Million
Lifecycle costs	\$200 Million
Fuel and electricity	\$700 Million
Total	\$2,100 Million

Scope of P3 Contract

Note: Costs related to expansion and alternative fuel options are not included



Questions?





Serving
GOVERNMENT,
Serving
CANADIANS.

Key Commercial Terms



Public Services and
Procurement Canada

Services publics et
Approvisionnement Canada

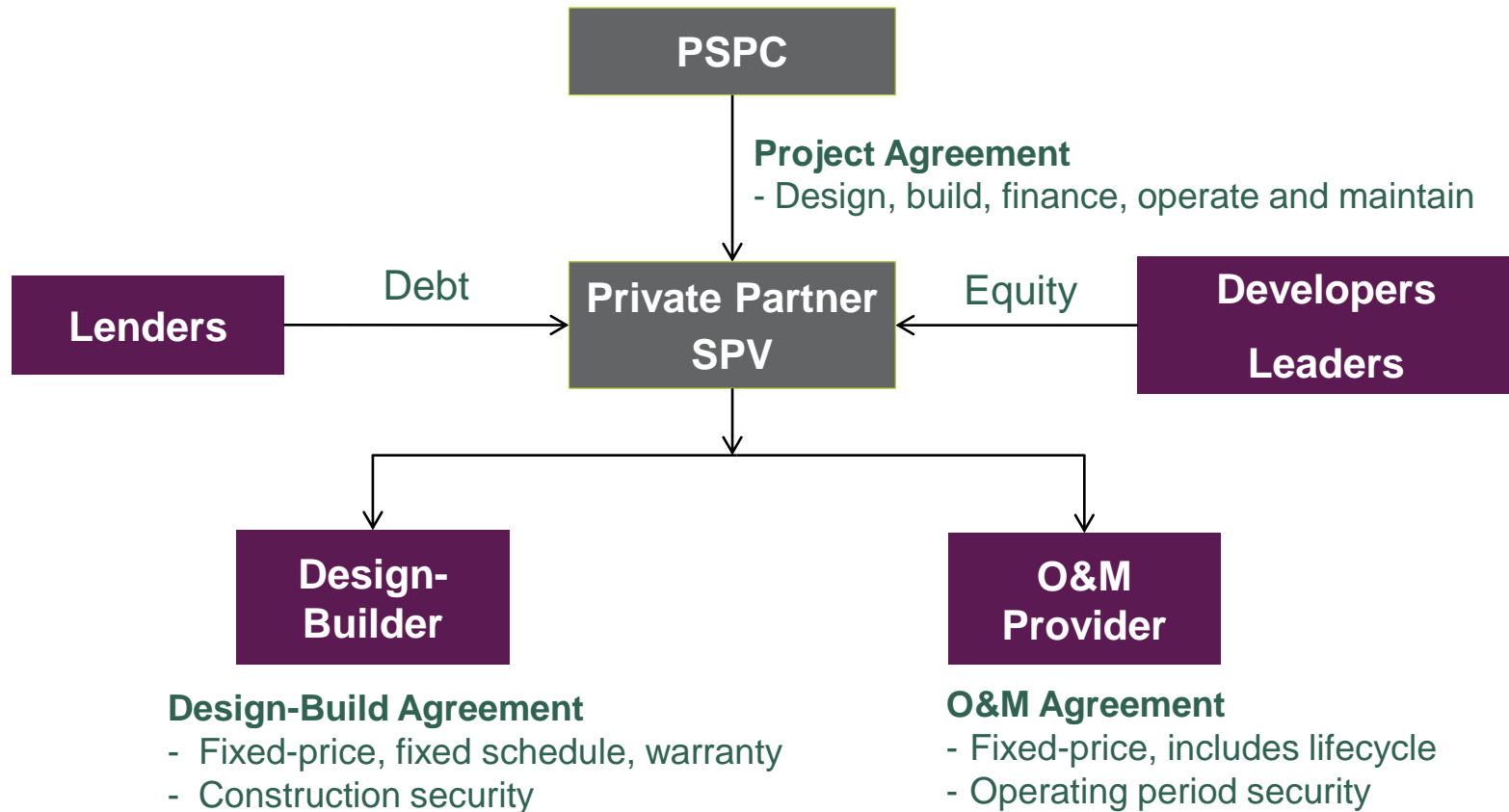
Canada

The Delivery Model

- For DES Modernization (Stage 1), it is a single Design-Build-finance-Operating-Maintenance (DBfOM) contract
 - **DB** = design build – this phase will take five years – 2020 to 2025
 - **f** = finance of the construction phase for a seven year term – 2020 to 2027
 - **OM** = operations and maintenance – 2020 to 2055
- This contract model is anticipated to achieve best value for money and risk allocation, control of the project and contractual flexibility to expand the system
- Draft Project Agreement is expected to follow the typical Canadian P3 Project Agreement (non-recourse financing solution)
- Project Agreement will wrap all risks (design, construction, financing, operation and maintenance) under one single contract



Anticipated P3 transaction structure



ESAP Contractual Structure

- Project Agreement: all risks including interface risk between construction and operation under one contract
- Private Partner will have flexibility to design their optimal organizational structure and financing solution
- Project Agreement is expected to be adapted during the RFP phase to address innovations and optimize allocation of risks



Anticipated Payments

Availability based contract: reliability, efficiency, security and quality

- Interim O&M payments during the construction phase:
 - Fixed operation and maintenance payments based on availability of the asset and technical specifications
 - Variable fuel and electricity payments (flow-through cost)
- Substantial completion payment
- O&M payments of the new infrastructure
 - Fixed operation and maintenance payments based on availability of the asset and performance specifications
 - Fuel and electricity (flow-through cost) and adjusted based on efficiency targets
 - Validation payment (after 2 years of operations) based on performance specifications



Risk allocation

Risk allocation	Private Partner	Canada
Approvals and Permits		
Environmental assessment (EA) approvals		✓
Compliance with environmental regulations	✓	
National Capital Commission (NCC) design approvals	✓	
NCC land use		✓
Construction and municipal permits	✓	
Operating permits	✓	
Transition Phase		
Operation, maintenance, and lifecycle replacement of Existing Infrastructure		✓
Efficiency of Existing Infrastructure		✓



Risk allocation

Risk allocation	Private Partner	Canada
Design and Construction Phase		
Operation, maintenance, and lifecycle replacement of Existing Infrastructure	✓	
Efficiency of Existing Infrastructure		✓
Design and construction of the District Energy Infrastructure	✓	
Buildings conversion to LTHW		✓
O&M Phase		
Operation, maintenance, and lifecycle replacement of the District Energy Infrastructure	✓	
Efficiency of the District Energy Infrastructure	✓	
Building demand, building energy consumption and commodity price risk		✓
Procurement, management and optimization of the input fuel	✓	✓
Metering	✓	
Customer billing and collection		✓
Handback requirements	✓	
Finance		
Financing during Design and Construction Phase and Validation Period	✓	
Financing of future District Energy Infrastructure expansion		✓



Commercialization of the DES

Roles	PSPC	Private Partner
Marketing		
Business development	✓	✓
Energy Supply Agreements	✓	
Design of rate structures	✓	
Customer service		
Meter reading		✓
Billing clients	✓	
Desk services: emergencies, clients' requests linked with DES		✓
Desk services: issues beyond ETS and billing	✓	
Improvements and infrastructure expansion within Project Agreement		
Identification of work required	✓	✓
Capital investment decisions	✓	
Design, build, operate and maintain		✓

Questions?





Procurement Process



Public Services and
Procurement Canada

Services publics et
Approvisionnement Canada

Canada

Procurement Process

- **Stage 1 – Request for Qualifications (RFQ)**
 - Identify the three highest ranked Qualified Respondents and invite them
 - Qualified Respondents will have to sign the Submission Agreement prior to be invited to proceed to RFP stage
- **Stage 2 – Request for Proposals (RFP)**
 - Three Qualified Respondents to submit technical and financial proposals
 - Proponent offering the best value for Canada will be selected as Preferred Proponent
 - RFP will have provisions for:
 - Commercially Confidential Meetings
 - Proposal Design Fee



Procurement Process

Key Activities

STAGE 1 – REQUEST FOR QUALIFICATIONS

Introductory Meeting / Information Session	September 21, 2017
End of Enquiry Period	October 16, 2017 16:00 EDT
Response Submission Deadline	November 1, 2017 14:00 EDT
Response Evaluation Completion	January 2018

STAGE 2 – REQUEST FOR PROPOSALS

Expected RFP release to Proponent	February 2018
Expected Proposal Submission Deadlines: Technical Financial	November 2018 January 2019
Expected Announcement of Preferred Proponent	February 2019
Expected Financial Close	May 2019
Substantial Completion	March 2025



Integrity

Integrity Framework

- Canada is committed to doing business with individuals and companies that respect the law and act with integrity. All respondents will be required to comply with the Integrity Provisions set out in the RFQ
 - A respondent must certify compliance with the integrity provisions included in the RFQ.

Conflict of Interest

- Ineligible Parties are identified in Section 15.4 of Appendix E.
 - The list is non-exhaustive

Section 3.7 of the RFQ: Respondents may request an Advance Ruling for integrity/conflicts of interest issues



Response Preparation Instructions

- Respondents must be mindful of the RFQ instructions
- Conditional responses and variations from the requirements of the RFQ may render the response non-compliant
- Documents marked as “Master”
 - In case of discrepancy between wordings, the “Master” copy will prevail.
- Page Limitations
 - Are identified per criterion within Appendix C – Rated Evaluation Criteria
 - Page count limitations do not apply for Package 1 (Appendix B – Mandatory Forms and Certifications)
 - Any additional pages will not be considered for evaluation
- Additional format instructions for size and type of paper, numbering system, font size, etc. are indicated in the RFQ



Response Preparation Instructions

- **Date and Place of Delivery of Responses**

- Deadline: 1 November 2017, at 14:00 (Eastern Daylight Time)
- Address:

Public Services and Procurement Canada
Bid Receiving Unit
11 Laurier Street
Place du Portage, Phase III
Tower B, Room 0B2
Gatineau, Québec



Response Preparation Instructions

- **Enquiries**

Manu Malik

E-mail Address: TPSGC.PASE-ESAP.PWGSC@tpsgc-pwgsc.gc.ca

- Addenda and Q&A published on a regular basis, as required
- Deadline for submission of Enquiries
 - Monday 16 October 2017 at 16:00 EDT



Response Preparation Instructions

- Package 1 (Forms and Certifications)
 - One (1) bound, signed master, marked as “Master”, and six (6) hard copies as well as two (2) separate USB data storage keys each containing electronic copies in both Microsoft® Office compatible format and searchable Adobe Acrobat® compatible PDF format
- Package 2 (Technical and Financial Capability and Experience)
 - One (1) bound, signed master, marked as “Master” and six (6) hard copies of each of the following sub-packages:
 - Team Partnering – Sub-Package A
 - Design Capability and Experience – Sub-Package B
 - Construction Capability and Experience – Sub-Package C
 - Operations and Maintenance Capability and Experience – Sub-Package D
 - Financial Capability and Experience – Sub-Package E
 - Two (2) separate USB data storage keys each containing electronic copies in both Microsoft® Office compatible format and searchable Adobe Acrobat® compatible PDF format



Forms and Certifications

- Respondents must submit the following mandatory documents as part of their Response:
 - Master RFQ Submission Form;
 - Team Member Consent Declaration Form;
 - Corporate Profile;
 - Directors of the Respondent Team Form; and
 - Respondent Team Information Form.



Evaluation Criteria

Notes:

- A respondent needs to obtain the minimum scores identified in the RFQ for each of section A to E, as applicable.

PACKAGE 2: TECHNICAL AND FINANCIAL CAPABILITY AND EXPERIENCE

RATED CRITERIA	WEIGHTING	MINIMUM SCORE
Team Partnering	Total : 10%	N / A
Design Capability and Experience	Total : 20%	12 / 20
Construction Capability and Experience	Total : 20%	12 / 20
Operations and Maintenance Capability and Experience	Total : 35%	21 / 35
Financial Capability and Experience	Total : 15%	9 / 15

Evaluation Criteria

- **Response Submission Requirements**
 - What must be submitted
 - The form and content that is expected
- **Evaluation Criteria**
 - Outlines the attributes of the response that will be rated
 - Details conditions that will impact the rating



Evaluation Criteria

- Section A will assess the Respondent Team Structure and Project Development Capability and Experience
- Assessment will be based on the following factors:
 - Respondent Team Composition, Structure and Approach;
 - Respondent Team's Experience Working Together; and
 - Project Key Individuals



Evaluation Criteria

- Sections B through D will assess Design, Construction and O&M Capability and Experience
- Assessment will be based on the following factors:
 - Experience (Comparability of each project reference and Capability collectively demonstrated by project references);
 - Approach; and
 - Project Key Individuals



Evaluation Criteria

- Section E will assess Financial Capability and Experience
- Assessment will be based on the following factors:
 - Financial Capacity;
 - Financial Approach;
 - Financial Experience;
 - Project Key Individuals; and
 - Ability to Secure Guarantees and Obtain Insurance





Security requirements



Public Services and
Procurement Canada

Services publics et
Approvisionnement Canada

Canada

Security Clearance – RFQ Stage

- No security clearances are required to submit a response to the RFQ
- However, it is anticipated that security clearances will be required in the RFP stage



Security Clearance – RFP Stage

- Canada will provide Proponents with technical drawings and information about existing facilities and future specifications, some of which will be sensitive, including information related to the distribution networks and tunnels
- It is anticipated that Proponent team members requiring access to this Sensitive Information to prepare the proposal will be required to meet the following security requirements:
 - Facility Security Clearance at the level of “Secret” (for firms)
 - Personal Security Clearance at the level of “Secret” (for individuals)
- Important to note that not all Proponent team members working on the RFP submission will require security clearances, just those requiring access to this Sensitive Information



Security Clearance – RFP Stage

- Potential Respondents are encouraged to initiate clearance processes **now** through Canadian Industrial Security Directorate (CISD)
- Security clearances for personnel clearance at the Secret Level may take up to a year or more to obtain.
- **Canada will not be responsible if required security clearances are not obtained in an appropriate time frame by any Proponent**

**All information regarding this RFQ is available
on:**

www.buyandsell.gc.ca

**Please direct any Enquiries regarding the RFQ
to the Canada Contact Person at:**

**[TPSGC.PASE-ESAP.PWGSC@tpsgc-
pwgsc.gc.ca](mailto:TPSGC.PASE-ESAP.PWGSC@tpsgc-pwgsc.gc.ca)**

