



**London Hydro  
CIS Strategy  
Board Presentation**

17 December 2019

# Introduction

## Developing a CIS strategy

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London Hydro (LH)'s current CRM and Billing (Customer Relationship and Billing) solution will no longer be supported post 2025 which presents a technology obsolescence risk. Due to the complexity of these types of solutions, LH approached the market to better understand the magnitude of the risk in addition to what mitigations can address the risk via the development of a CIS strategy.

EY was selected to partner with LH to develop a CIS strategy aligned to corporate goals that would address current pain points and meet the needs of tomorrow, add value to the business and reduce LH's CIS platform complexity and cost of ownership.

Over a period of 10 weeks, EY carried out the following scope of work:

1. Conducted a review of London Hydro current CIS solutions (Customer Relationship Management, billing and meter data management), pain points and future vision along with market scan to determine what CIS are deployed at other North American utility companies. As a part of the review, EY conducted 15 workshops and meetings with five departments of Customer Service, Finance, Device Management, Billing and IT and met with LH leadership
2. Conducted a review of London Hydro's current bill imaging solution provided by an external 3<sup>rd</sup> party
3. Worked with London Hydro to conduct a business case driven options analysis to select the most feasible option
4. Collaborated with London Hydro to develop the roadmap and the supporting business case for the selected CIS strategy

*The objective of EY's work was to deliver a pragmatic CIS strategy and business case for London Hydro execution that not only supports the future growth for London Hydro, but also meets the needs of the future customer.*

# Our observations of LH's current CIS landscape

LH is providing reliable electricity services and positive customer experience

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Key highlights from our workshops include:



## High accuracy in processing transactions

London achieved a billing accuracy of 99.8%, strongest quartile for cost per customer in the province



## Customer-focused services

LH has achieved first contact resolution of 99.6% and an overall customer satisfaction rating of A



## Stable CIS environment

Established processes around customer service, billing, device management and finance to support ecosystem



## Enhanced customer experience and engagement

LH has invested in initiatives to meet customer needs such as the web-based MyLH portal for self service, Trickl app for energy management and conservation, Builder's Portal, Property Management Portal for managing tenancies and Green Button for energy usage data management

In addition, LH have realized opportunities to further streamline capabilities that include:

- ▶ Exploring alternative bill imaging solutions
- ▶ Review and implement new features in EHP8
- ▶ Optimizing collections and dunning process
- ▶ Improve service order management process for engineering and maintenance
- ▶ Improve settlement and finance processes

We advise LH to hold any investments in current system unless absolutely necessary. LH will need to assess and prioritize the mentioned initiatives

# Case for change

## Lack of support for current CIS platform rules out the option of retaining the status quo

By 2025, the current instance of SAP will no longer be supported. With an unsupported system, there are potential risks related to critical system updates, security and technical support.

### Implications for maintaining current system

#### Changing customer expectations

Digital technology is influencing customer expectations and behaviour. A legacy system may lack the capabilities to adapt to increasing customer demands for more granular data

#### Inhibit digital innovation

A legacy SAP system may inhibit LH's ability to leverage improvements to drive innovation or would require LH to build a complex environment around the legacy SAP instance to support innovations

#### Exposure to security vulnerabilities

Without critical system updates, LH will be vulnerable to security threats that may expose customer information in an ever increasing digital and connected environment.

#### Regulatory and compliance issues

A legacy system may have compliance issues as OEB regulations and programs continually change

#### Resourcing challenges

It would be increasingly difficult for LH to find new resources to continue supporting SAP in house and retention of existing resources will be challenging as resources inherently want to 'skill up'

### Opportunities for replacing current system



Establish integrated customer interaction management across departments for a 360 degree view of the customer



Respond to increasing customer demand for personalized, real-time data



Harmonize established processes across LH departments and align to industry best practices



Complement LH's digital agenda



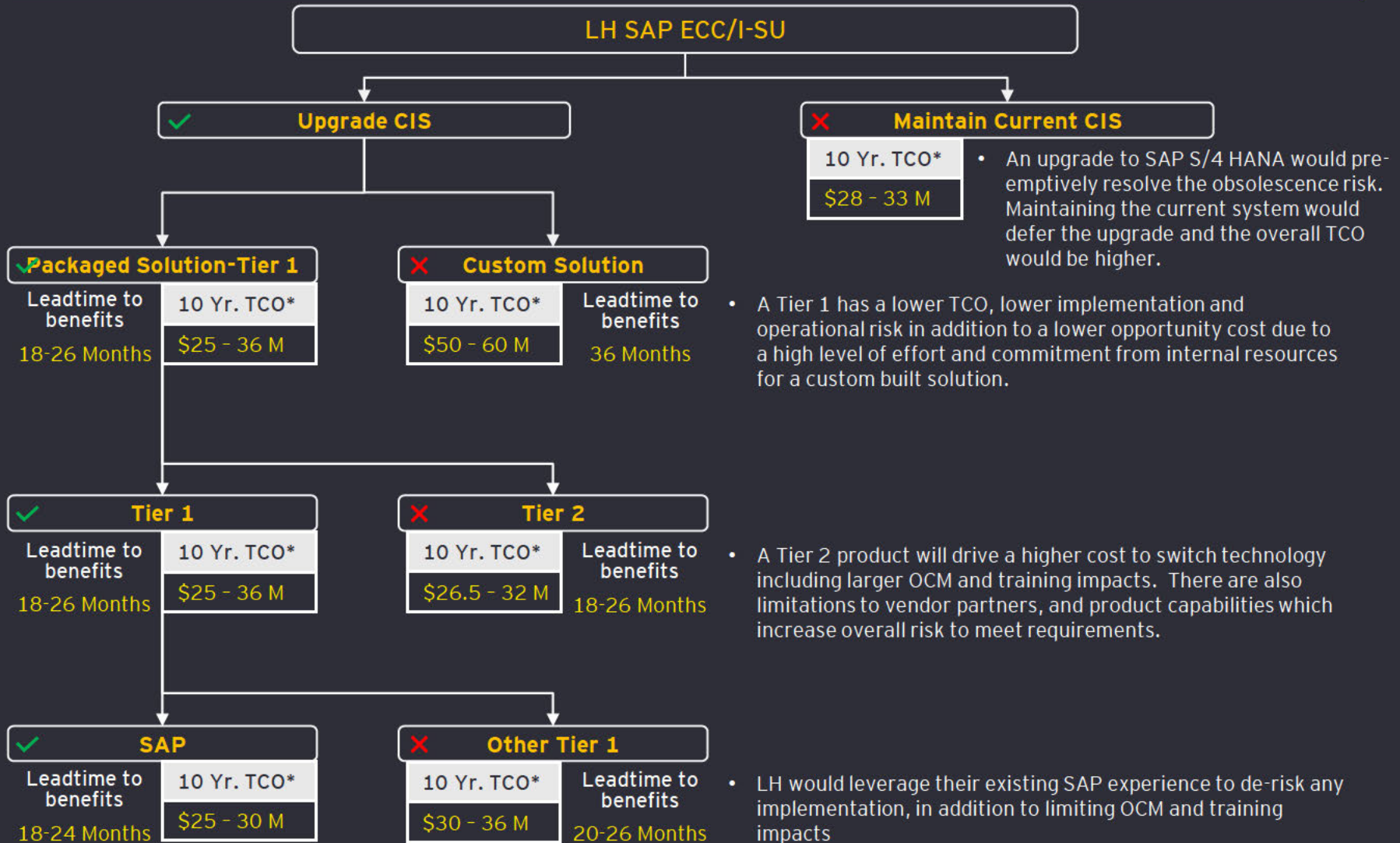
Enhance data management and analytics at LH



Manage resource risk and resource dependency

# High-level CIS options decision tree

Compared to other solutions, upgrading to the latest SAP platform is the preferred option



# Roadmap for future S/4 HANA implementation

The S/4 HANA implementation will be a technical and functional upgrade from ECC/IS-U





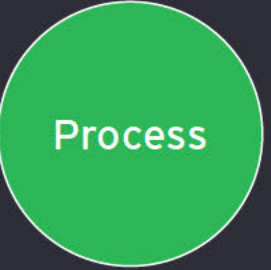





By 2021, market forces are expected to drive significant development in SAP accelerators and SI experience in SAP S/4 HANA implementations. An implementation in 2022 will allow LH to take advantage of these developments, mitigate implementation risks and allow for runway to prepare for CIS go live at the end of 2022

	2019		2020		2021		2022		2023	
	H1	H2	H1	H2	H1	H2	H1	H2	H1	H2
Business process, data management & project management consultant selection & contracting			▶							
Data Model and Management Focused on S/4HANA			▶							
Solution and SAP build Solution Integrator Procurement					▶					
Future State Architecture (SAP Maturity Check)							▶			
CIS Design and Implementation							▶			
CIS Stabilization									▶	

- ▶ The S/4 HANA Single Tenant Edition is SAP's latest available cloud solution, but is not a complete SaaS cloud solution. SAP plans to incorporate the Meter to Cash for energy products in the public cloud by 2020
- ▶ 2020 - we suggest LH should reassess the maturity of the SAP solution stack
- ▶ Go live date of end of 2022 provides contingency for LH prior to end of mainstream support in 2025
- ▶ 2025 is the announced end of life date for SAP ECC/IS-U systems
- ▶ Levers exist to minimize LH resource effort during phases for design and before build to allow for bandwidth for rate filing

# Risks and mitigation strategies

Strategic planning and preparation needed to mitigate people, process and technology risks



	Risk	Mitigation Strategy
 <p>People</p>	 <p>Internal resistance to change</p>	Develop robust change management strategy and plan to promote communication of change impacts and drive awareness of project goals to all relevant stakeholders
	 <p>Ability to recruit SAP resources locally</p>	Focus on training and reskilling internal resources; assess current end-user skillset and budget to staff project with offshore resources
	 <p>Key person dependencies</p>	Develop an enterprise wide documentation for critical business and technology processes; create cross functional teams to facilitate interdepartmental communication and mitigate single point of failure
 <p>Process</p>	 <p>Data duplication and inconsistencies across multiple systems</p>	Identify system of record for enterprise entities, standardize information sharing across multiple application and business units; develop inventory of processes and interfaces
	 <p>Regulatory changes</p>	Maintain routine communication with regulators and key governance structure to respond to regulatory changes appropriately
	 <p>Lack of common data definitions</p>	Define and socialize an enterprise data dictionary; implement enterprise governance around process changes, data design, documentation and ongoing support
 <p>Technology</p>	 <p>Inability to scale and adapt to customer demands</p>	Collaborate with industry consultants and SAP vendor to design a scalable CIS solution to address evolving industry trends and increasing customer demand

# Recommendations for LH

## Key features, outcomes and risks

Through our observations and analysis of LH's current state, our recommendation includes the following:

- ▶ Upgrade to SAP S/4 HANA cloud-based platform in 2022 to take advantage of the following:
  - ▶ Higher likelihood for advantageous pricing (SI and software)
  - ▶ Resource availability to support the upgrade
  - ▶ Minimize risk due to obsolescence
- ▶ Prioritize process standardization (where applicable) and master data management prior to implementation
- ▶ Define and socialize an enterprise data dictionary
- ▶ Implement enterprise governance around process changes, data design, documentation and ongoing support


 Key outcomes	 Key risks
<p><b>Mitigating future technology risks</b> As end of life for LH's current CIS approaches, a SAP S/4 HANA upgrade will mitigate the risks associated with technology obsolescence</p> <p><b>Enhanced customer engagement</b> Accurate, real-time consumption data to meet customer demands with increasing analytical capabilities</p> <p><b>System scalability and flexibility</b> Ability to support current needs today and tomorrow by continually enhancing service capabilities to meet customer needs</p> <p><b>Process standardization where applicable</b> Opportunity to streamline and reduce resource dependencies for critical processes</p>	<p><b>Organizational impact</b> As multiple departments across the organization will be affected, proper governance and change management will be required</p> <p><b>Training</b> An updated CIS system will require training and process changes for end users</p> <p><b>Implementation effort</b> Significant time and effort is required to ensure a successful implementation</p> <p><b>Skilled resources</b> Experienced implementation resources with industry knowledge is essential to prevent cost overrun</p>






# Estimated project costs for S/4 HANA implementation


Accelerators across the SI network in 2022 drive LH costs to the lower end of benchmarks

The total implementation costs will be influenced by cost levers which include (but not limited to) the level of transformation (minimal to small), level of customization (for non-regulatory purposes), degree of interface rationalization, data conversion efforts and training of internal resources


CAPEX	Prices (in CAD)*
<b>Total One-time Implementation Cost:</b> (includes SI Labour cost, Hardware/Infrastructure cost, Initial Setup cost, Contingency, Travel & sundry expenses)	

OPEX	Prices (in CAD)*	
<b>Annual operational expenses:</b> (includes annual SAP subscription fee, Internal IT Support cost & 3 <sup>rd</sup> party testing)	Future	
	Current	
	Incremental	

Typical benchmark for CIS implementation is approximately




Utility with 380K customers (2 services, de-reg)



CAD/customer for SI cost

Utility with 500K customers (single service, regulated)



CAD/customer for SI cost

\*All costs are for illustrative purposes only. The estimates are based on current market costs and might be impacted by SI resourcing costs in 2021. Final costs will also depend on finalized requirements, scope of work, solution architecture and vendor discount. These are rough order of magnitude costs with a variance of +/- 30%.

\*\*TCO are illustrative costs that incorporate implementation costs Subscription/ licence fees and LH support costs

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CAPEX	Prices (in CAD)*
SI Labor Costs (external to internal ratio)	
Hardware/Infrastructure (to support full cloud model)	
Setup	
Contingency	
<b>TOTAL</b>	
Travel and Expenses	
<b>Total One-time Implementation Cost</b>	

OPEX			
Current Expense	Prices (in CAD)*	Future Expense	Prices (in CAD)*
Annual Maintenance		Subscription Licenses	
Internal IT Support		Internal IT Support	
External IT Support (Cloud)		External IT Support (Cloud)	
Third-party Regression Testing		Third-party Regression Testing	
<b>Total Ongoing Cost</b>		<b>Total Ongoing Cost</b>	

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