

# PTR System Long-Term Strategy

Energy Smart Awareness

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# Agenda

- Background
- Assessment
  - ❖ Approach
  - ❖ Key stakeholders
  - ❖ Requirements gathering
  - ❖ System Assessment
  - ❖ Key drivers for change
  - ❖ Options analysis
- Next Steps
- Questions

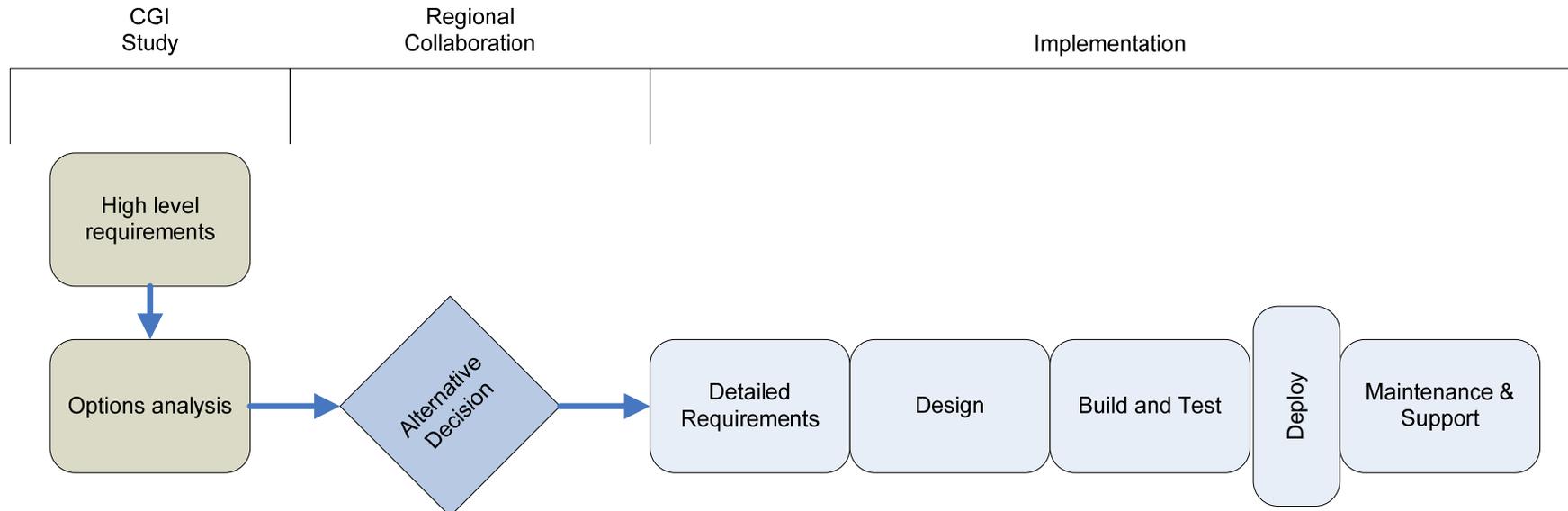


# Background

- Northwest region currently operates the Planning, Tracking and Reporting (PTR) system
- November 2008, CGI hired to assess current PTR and suggest long-term strategy
  - ❖ Options and associated pros/cons were examined to help reach an informed decision about future direction
  - ❖ Requirements documented in the “[BPA Requirements](#)” document
  - ❖ Five R methodology was applied in this engagement, results are presented in the “[Alternative Analysis](#)” report
- Decision on future direction needed
  - ❖ Alternatives analysis report to be used as the basis for the decision
  - ❖ Regional agreement on direction needed



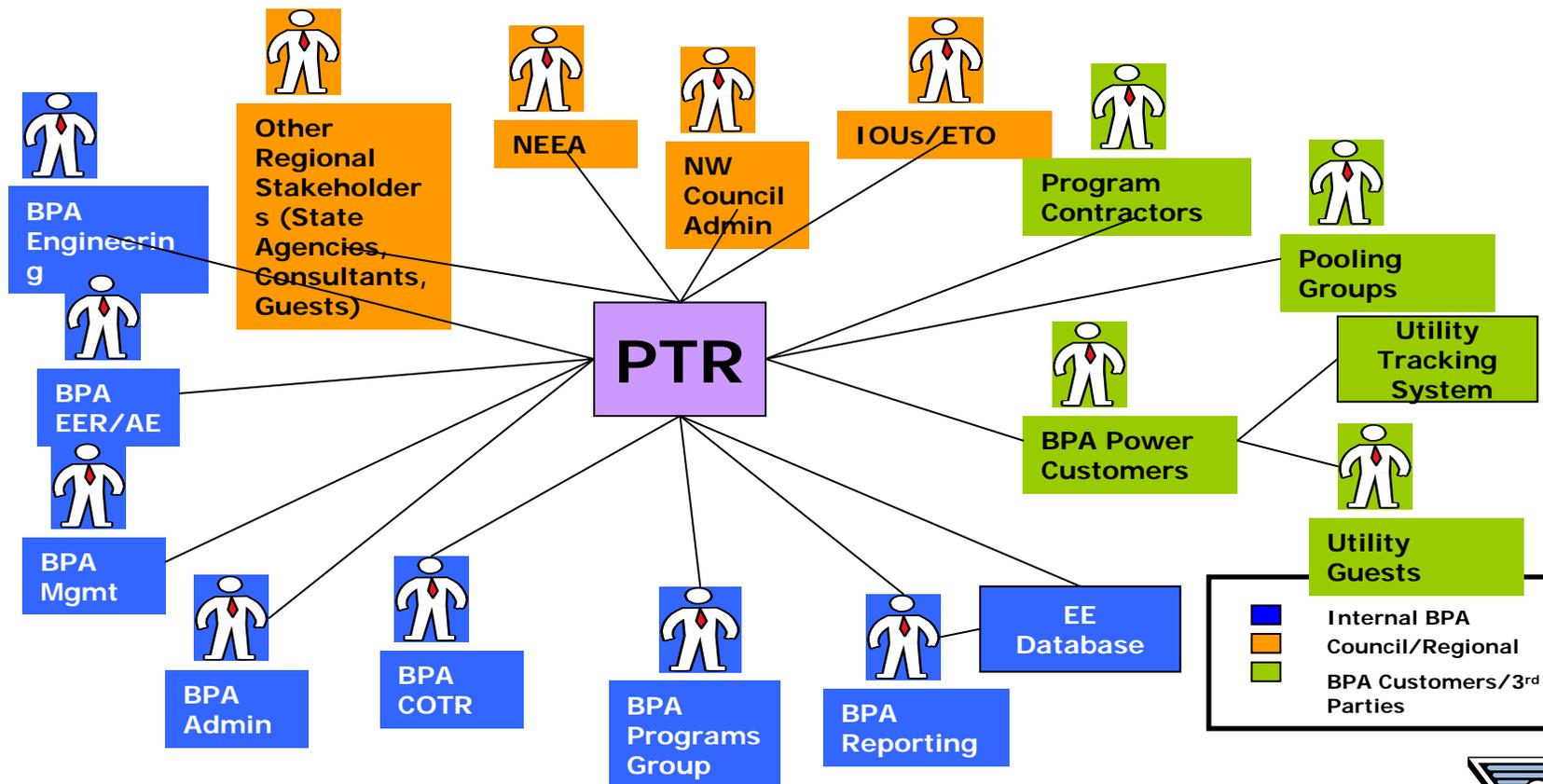
# Assessment Approach



- High Level Requirements
  - Interviews with users, operators, administrators
  - Current system capabilities analyzed
  - Requirements recorded encompassing both current and future needs
- Options Analysis
  - Identify key drivers for change (through analysis and interviews)
  - Use CGI methodology to identify and assess available alternatives



# Key Stakeholders



# Requirements Gathering

## Conducted Interview Sessions with:

- Internal BPA groups -- Management, Engineering, Programs, EERs & AEs, COTRs, System Admin, Energy Efficiency Database/Reporting
- External Groups -- RTF/Council, Synergy, CTED
- Utilities -- Benton PUD, Big Bend Electric, City of Port Angeles, Clark PUD, Cowlitz, County PUD, Ellensburg City Light, EWEB, Flathead Electric, Grant County PUD, Idaho Falls Power, Inland Power & Light, Kootenai Electric, McMinnville Water & Light, Modern Electric, Okanogan County PUD, PNGC Power, Seattle City Light, Snohomish County PUD, Tacoma Power



# Requirements Gathering Results

Requirement Type	Category	Quantity
<b>Functional</b>	Budgeting & Reporting	11
	External Entity Management	12
	Global	28
	Measure Incentive & Custom Project Processing	16
	Measure Management	13
	Program Planning & Management	17
	<b>Total Functional Requirements</b>	<b>97</b>
<b>Non-functional</b>	Technical	7
<b>Total Requirements</b>		<b>104</b>

- 1/3 of current functions are not used
- Certain industry standard functions are missing in current system
- Additional requirements gathered will add business value/user-friendliness

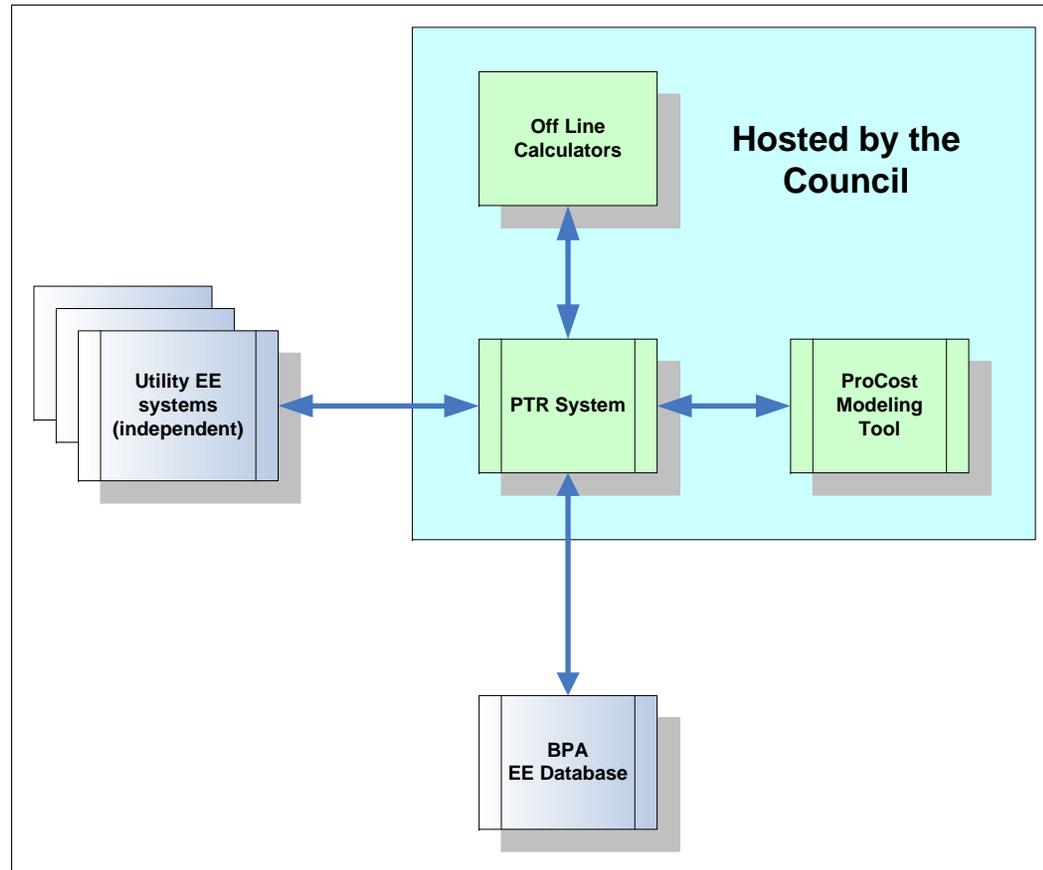


# Overview of Functional Requirements

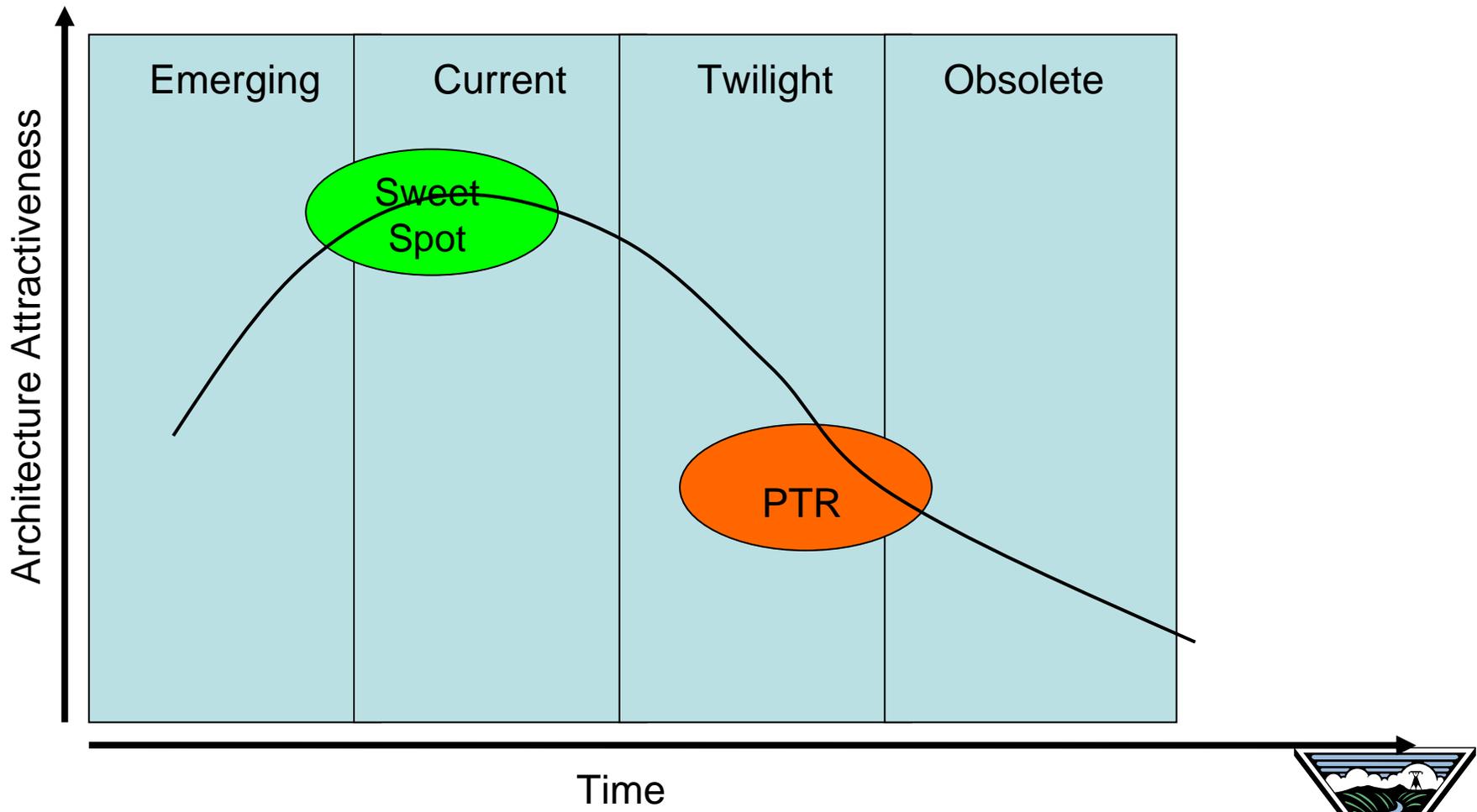
- **Global** – Global requirements, including data integrity, validation, availability, conversion, retention and archiving, as well as specifications regarding log-in and help information
- **Measure management** – Requirements related to the ProCost Data model maintenance, including create, modify, and deactivate measures
- **Program planning and management** – Requirements related to program planning and management including, create, modify and delete core business rules as needed, as well as specifications regarding workflow processes
- **Measure incentive and custom project processing** – Requirements related to measure incentive processing for the utilities, COTRs, EERs and engineers
- **Budgeting and Reporting** – Requirements related to finance accounting and reporting for BPA, utilities, RTF, and others such as state agencies
- **External Entity Management** – Requirements related to external interfaces with outside systems



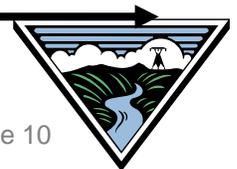
# Current System Overview



# Technology System Lifecycle



PTR is entering the obsolete stage



# PTR Technology Components at a Glance

PTR Area	Product Name	Release Date	Mainstream De-Support Date	Current Replacement Option
User Interface	ASP/HTML	1999	3/31/2005	AJAX Framework   Modern UI Widget
Platform	Classic ASP/VB 6.0	1999	3/31/2005	.NET 3.5 / Java/J2EE
Web Server	Internet Information Services 5.0	2000	6/30/2005	IIS 7.5 Open Source Apache HTTP Server 2.x
Database	SQL Server 2000	2000	4/8/2008	SQL Server 2008 Oracle Database 11G Open Source MySQL
Operating System	Windows 2003	2003	7/13/2010	Windows Server 2008 Various flavors of Linux/Unix
Productivity Tool	Office 2003	2003	4/14/2009	Office 2007
Hardware	x86 Pentium-IV family	2000	No end date	Virtualization based approach like VMWare or Java Virtual Machine(JVM) running on multi-core CPU
Reporting Engine	SQL	N/A	No end date	Dedicated Reporting Service Engine SQL Server Report Service (SSRS 2008) Crystal Reports Open Source alternative like Jasper Report
Document Management	N/A	N/A	No end date	Open Source package like Nuxeo or CGI EE Framework

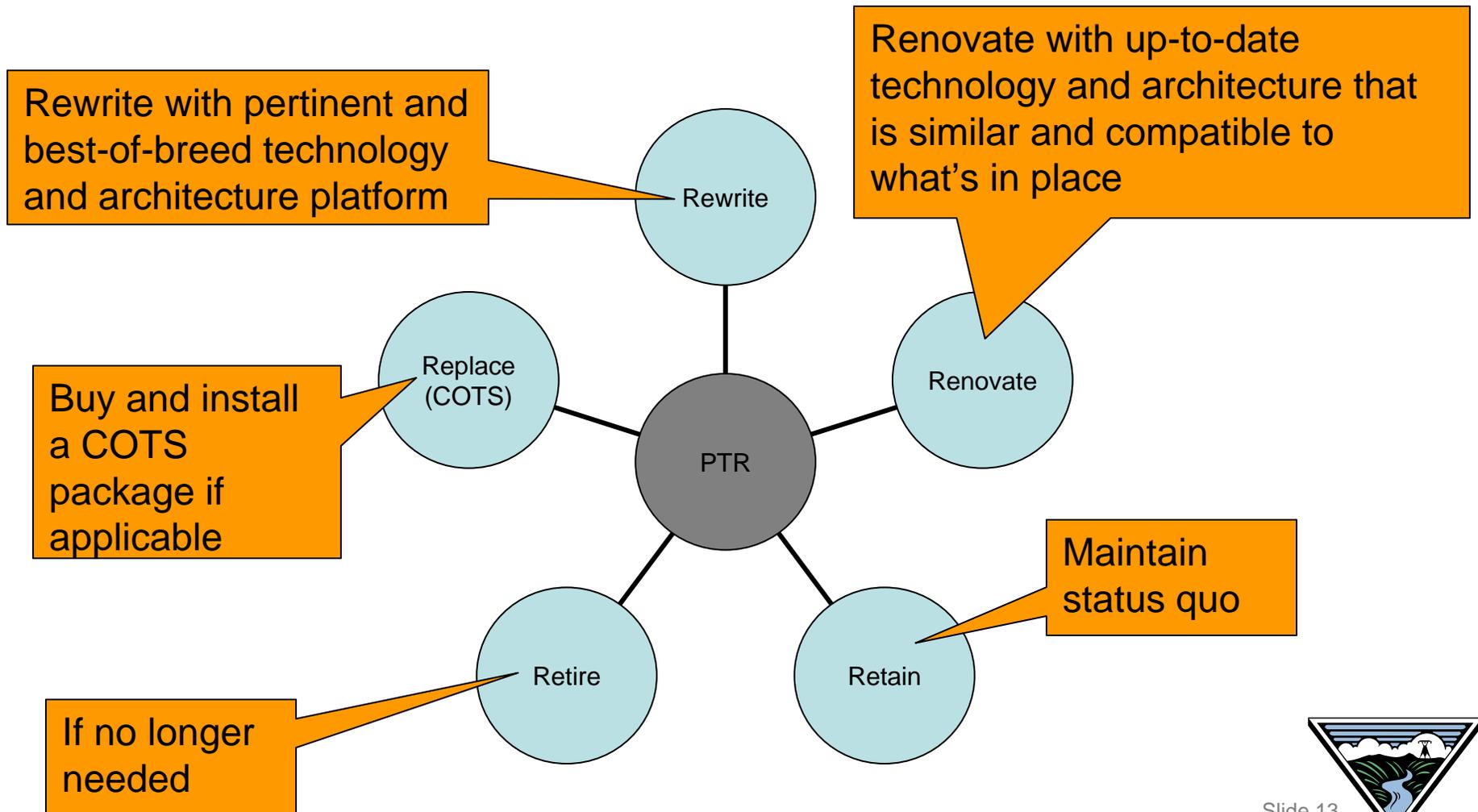


# Key Drivers for Change

- Address Technology Obsolescence
- Enhance Technical Capabilities
  - ❖ Workflow
  - ❖ Reporting
  - ❖ Document Management
- Improve System Flexibility
  - ❖ Technical Flexibility
  - ❖ Business Requirements
  - ❖ Changes in contracts and regulations
- Automation
- Improve System Usability
- Reduce Long Term Cost and Risk



# Alternative Analysis Methodology – 5R



# Alternative Analysis Criteria

Criteria	Definition	Key Drivers Addressed
Business Value	How effective and comprehensive the approach is strategically aligned to meet the stated BPA business requirements – existing or future.	Improve System Flexibility and Usability, Automation
Customer Satisfaction	How effective the approach will meet or exceed customer satisfaction.	Improve System Usability
Total Cost of Ownership (TCO)	Using a holistic view, the sum of initial and ongoing system total costs, including potential new system design/development, long term maintenance and ability to leverage free/open source software packages.	Reduce Long Term Cost and Risk
Return-on-Investment (ROI)	From both financial and business perspective, this is the high-level estimate of the cost/benefit analysis of the approach, taking into account the initial and ongoing costs, the avoided cost for potential enhancements and maintenance, and the expected benefits to meet future business requirements changes.	Reduce Long Term Cost and Risk Automation
Technical Soundness	A measure of how well the approach addresses critical technical and non-functional requirements, including those related to technical architecture, usability, system reliability, scalability, security and disaster recovery.	Address Technology Obsolescence Enhance Technical Capabilities
Supportability	A high-level assessment of the approach's serviceability, adaptability and extensibility. This is a measure of how easy and cost-effective the solution can be modified to accommodate changes in requirements, or scaled to handle increases in transaction volume.	Reduce Long Term Cost and Risk
Time to Market	This measures how quickly and flexibly the approach can be carried out to provide full business value to BPA.	Improve System Flexibility
Risk	A high-level assessment of the financial, technical, organizational and operational risks associated with adopting the approach.	Reduce Long Term Cost and Risk
Infrastructure Flexibility	This measures how flexible is the underlying architecture so that infrastructure pieces can be changed if necessary or additional best-of-breed components can be introduced easily for mix-n-match.	Reduce Long Term Cost and Risk



## Alternative Analysis Scoring System

- Most Favorable: A score of 5 out of 5.
- More Favorable: A score of 4 out of 5.
- Favorable: A score of 3 out of 5.
- Less Favorable: A score of 2 out of 5.
- Least Favorable: A score of 1 out of 5.
- As such, a “perfect” solution will score 45 out of 45 because we have 9 assessment criteria in total.



## Summary of Alternatives

	<b>Retain</b>	<b>Replace</b>	<b>Renovate</b>	<b>Rewrite</b>
What it means	“Do Nothing”	COTS	<ul style="list-style-type: none"> <li>•Leverage existing assets</li> <li>•Extend life of existing application</li> </ul>	<ul style="list-style-type: none"> <li>•Start from scratch</li> <li>•Keep existing system in interim</li> </ul>
Pros	<ul style="list-style-type: none"> <li>•Low initial cost</li> <li>•Low risk in near term</li> </ul>	<ul style="list-style-type: none"> <li>•Immediately available</li> <li>•Don’t have to reinvent the wheel</li> </ul>	<ul style="list-style-type: none"> <li>•Deliver improvements faster</li> <li>•Easier to manage risks</li> </ul>	<ul style="list-style-type: none"> <li>•Ability to meet all requirements</li> <li>•Able to build as user-friendly</li> </ul>
Cons	<ul style="list-style-type: none"> <li>•Does not address key drivers</li> <li>•Viable for very short term</li> </ul>	<ul style="list-style-type: none"> <li>•Product limitations</li> <li>•Potentially higher cost</li> </ul>	<ul style="list-style-type: none"> <li>•May not meet all requirements</li> <li>•Inherent limitation and less efficient</li> </ul>	<ul style="list-style-type: none"> <li>•Have two systems for a time</li> <li>•Less than ideal time to market</li> </ul>



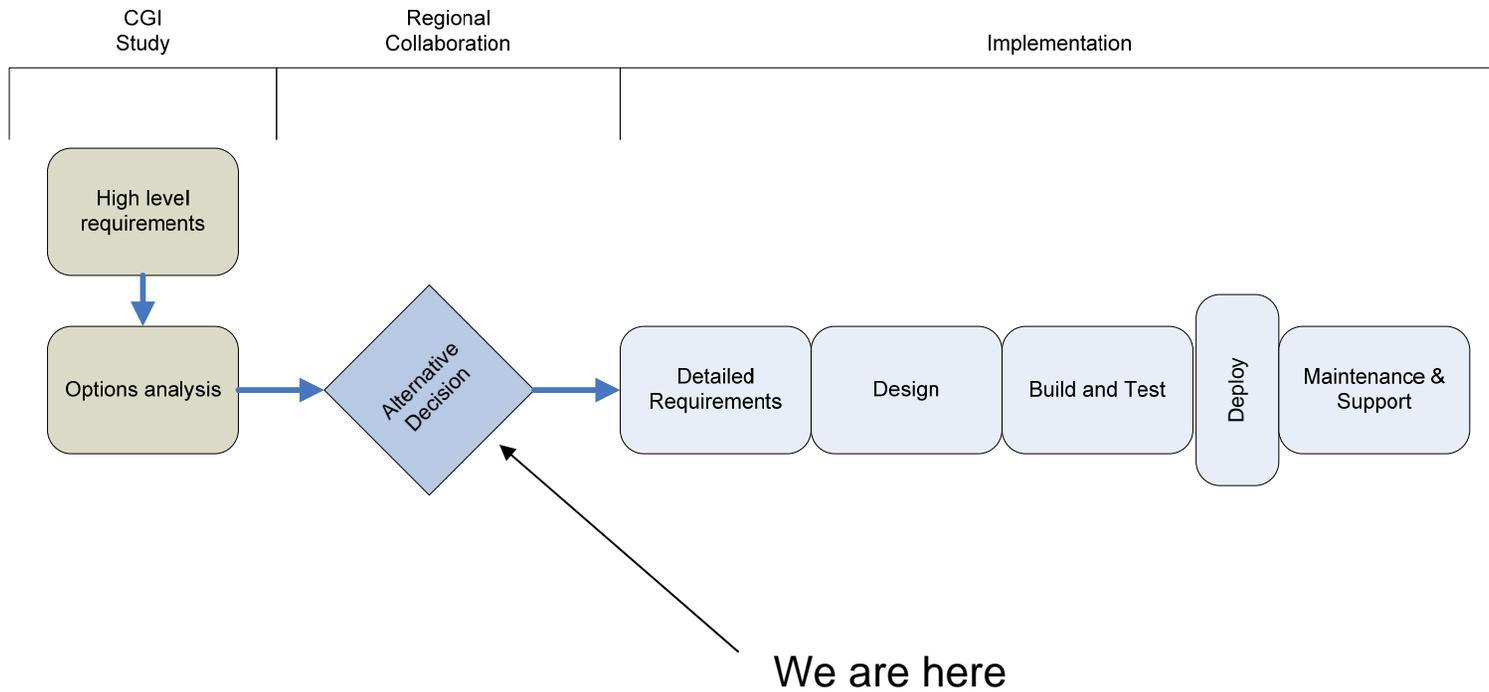
# Alternative Analysis Scoring Summary

Assessment Factors	PTR Alternative Options				
	Retain	Replace (COTS)	Renovate	Rewrite	Retire
Business Value	2	N/A	4	5	N/A
Customer Satisfaction	2	N/A	3	5	N/A
Total Cost	3	N/A	4	5	N/A
Return on Investment	2	N/A	3	4	N/A
Technical Soundness	2	N/A	3	5	N/A
Supportability	1	N/A	4	5	N/A
Time to Market	4	N/A	3	3	N/A
Risk	2	N/A	3	4	N/A
Infrastructure Flexibility	3	N/A	3	5	N/A
Overall (out of 45)	21	N/A	30	41	N/A

**Evaluation:** 5 Most Favorable 4 More Favorable 3 Favorable 2 Less Favorable 1 Least Favorable



# Next Steps



# Who Does What By When

<b>Aug-Sept 2009</b>	Energy Smart Awareness and initial Stakeholder Advisory Group (SAG) development
<b>Late 2009</b>	Competitive solicitation for vendor to develop and implement rewrite of PTR Convene PTR Stakeholder Advisory Group (SAG)
<b>Feb/Mar 2010</b>	Select winning proposal, contract with vendor
<b>Mid/Late 2010</b>	Review high level functional requirements and develop detailed requirements and design
<b>Late 2010</b>	Vendor develops system, conducts initial testing
<b>Mid 2011</b>	System complete, begin transition and user training
<b>Sept 2011</b>	Transition complete, revised PTR in place



## Contacts and Other Information

- For questions/comments regarding the PTR Long-Term Strategy please contact

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- Learn more about the PTR and get the reports:  
<http://www.bpa.gov/Energy/N/PTR.cfm>



# Questions?

