ONTARIO POWER GENERATION

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Document Number:	Revision:

Title:

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Asset Investment Options Summary							
Facility:	☐DNGS ☐PNGS ☐NWM ☐RI						
System Name:			**Recommended Option:**				
Equipment Type:		**Rev:**		**CC Cat.:**		**Total Cost:**	
Investment Class:			**RROI:**				
Asset Investment Net Value (NPV)		**Start Year:**			**End Year:**		
LCP/Reference Doc.:			**Key Risk Area(s):**				
Component Function:							
Component Condition and Issues							
Recommended Option & Basis							

Recommended Strategy Investment Value	
Value Measure	**Value (PV)**
Safety Risk – Conventional	
Safety Risk – Nuclear	
Safety Risk – Radiological	
Regulatory Risk	
Environmental Risk	
Environmental Risk – Radiological Emissions	
Security Risk – Cyber Security (Asset subject to CSA N-290 or NERC CIP)	
Security Risk – Cyber Security (Other)	
Social Licence & Reputation Impact	
Lost Generation Risk	
Financial Risk	
Financial Impact; either positive (savings or added revenue) or negative (added expenses)	
Total	
Asset Investment Net Value (NPV)	

Option 1 - Current Strategy

Unit(s)					
	☐ Unit 0	☐ Unit 1	☐ Unit 2	☐ Unit 3	☐ Unit 4
	☐ Unit 5	☐ Unit 6	☐ Unit 7	☐ Unit 8	☐ Common
	☐ WWMF L&ILW	☐ WWMF UFDS	☐ DWMF	☐ PWMF	☐ Other

Description/ Dependencies/ Associated Work/ System Configuration Requirements	**Unit**	**In Service Year**	**Project Start Year**

Online/Outage/Refurb	Lead Time	Field Installation Time	Funding Requirement
			☐ Project ☐ Maintenance

Cost Estimate	**Asset Investment Net Value (NPV)**	Additional Comments (include unusual resource requirements, special tooling, special unit or system condition requirements, unusual implementation issues, ALARA impact, etc.)	**Project Complexity**

OPEX (From other Utilities)	**Project Duration (Months)**	**Candidate for M&D Centre Monitoring?**		**Strategic Sourcing Candidate?**	
		☐ Yes ☐ No	Rationale	☐ Yes ☐ No	Rationale

Investment Class	**Proposed Design Executing Org.**

Option 2 - Recommended Strategy

Unit(s)					
	☐ Unit 0	☐ Unit 1	☐ Unit 2	☐ Unit 3	☐ Unit 4
	☐ Unit 5	☐ Unit 6	☐ Unit 7	☐ Unit 8	☐ Common
	☐ WWMF L&ILW	☐ WWMF UFDS	☐ DWMF	☐ PWMF	☐ Other

Description/ Dependencies/ Associated Work/ System Configuration Requirements	**Unit**	**In Service Year**	**Project Start Year**

Online/Outage/Refurb	Lead Time	Field Installation Time	Funding Requirement
			☐ Project ☐ Maintenance

Cost Estimate	**Asset Investment Net Value (NPV)**	Additional Comments (include unusual resource requirements, special tooling, special unit or system condition requirements, unusual implementation issues, ALARA impact, etc.)	**Project Complexity**

OPEX (From other Utilities)	**Project Duration (Months)**	**Candidate for M&D Centre Monitoring?**		**Strategic Sourcing Candidate?**	
		☐ Yes ☐ No	Rationale	☐ Yes ☐ No	Rationale

Investment Class	**Proposed Design Executing Org.**

Option 3 - Alternate Strategy

Unit(s)					
	☐ Unit 0	☐ Unit 1	☐ Unit 2	☐ Unit 3	☐ Unit 4
	☐ Unit 5	☐ Unit 6	☐ Unit 7	☐ Unit 8	☐ Common
	☐ WWMF L&ILW	☐ WWMF UFDS	☐ DWMF	☐ PWMF	☐ Other

Description/ Dependencies/ Associated Work/ System Configuration Requirements	**Unit**	**In Service Year**	**Project Start Year**

Online/Outage/Refurb	Lead Time	Field Installation Time	Funding Requirement
			☐Project ☐Maintenance

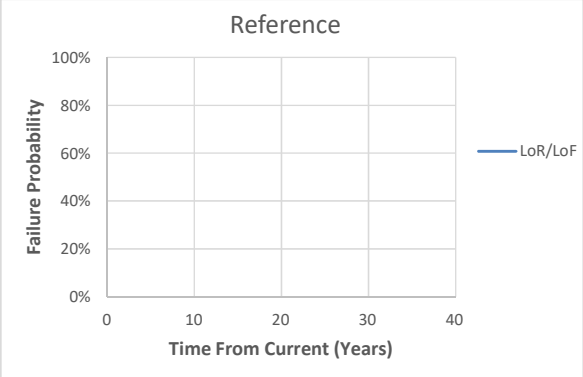
Cost Estimate	Asset Investment Net Value (NPV)	Additional Comments (include unusual resource requirements, special tooling, special unit or system condition requirements, unusual implementation issues, ALARA impact, etc.)	Project Complexity

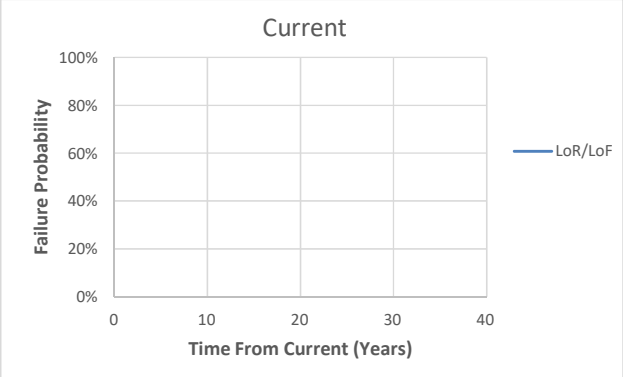
OPEX (From other Utilities)	Project Duration (Months)	Candidate for M&D Centre Monitoring?		Strategic Sourcing Candidate?	
		☐Yes ☐No	Rationale	☐Yes ☐No	Rationale

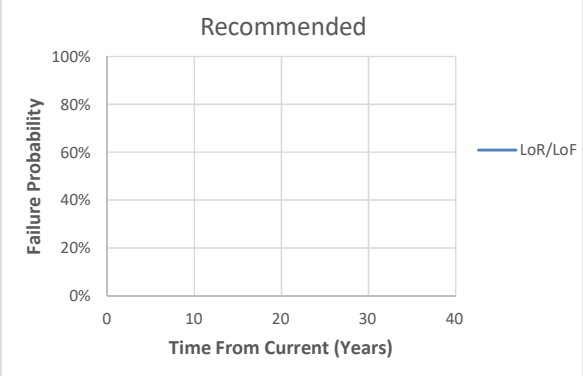
Investment Class	Proposed Design Executing Org.

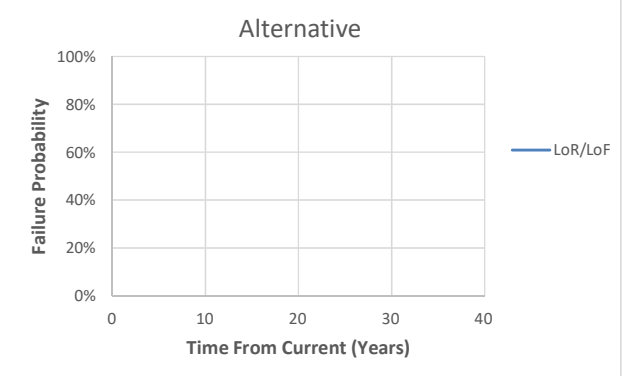
Individual Component Summary				
E-Tag	E-Tag	E-Tag	E-Tag	E-Tag

Input Probability of Failure (PoF) Curves (Either LoF, LoR, Hybrid or Other)









Probability of Failure Data (Either LoF or LoR inputs)

Option	Installed	Curve	λ	β	PoF	Age (years)	Notes (as req'd)
Reference							
Current Strategy							
Post Install - Rec Strategy							
Post Install - Alt Strategy							

Option 1 - Current Strategy									
No.	Description								Estimate Total
1	Project Management								
2	Inspections								
3	Engineering								
4	Procurement								
5	Construction								
6	Commissioning								
7	Close-out								
8	Removal Cost								
	Total								

Assumptions: Key Assumptions	
Exclusions: Specific Exclusions	

Cash Flow for Option 1 - Current Strategy									
Unit No.									**SUM**
Gross Spend									
Total Cash Flow									

Option 2 - Recommended Strategy									
No.	Description								Estimate Total
1	Project Management								
2	Inspections								
3	Engineering								
4	Procurement								
5	Construction								
6	Commissioning								
7	Close-out								
8	Removal Cost								
	Total								

Assumptions: Key Assumptions	
Exclusions: Specific Exclusions	

Cash Flow for Option 2 - Recommended Strategy									
Unit No.									**SUM**
Gross Spend									
Total Cash Flow									

Option 3 - Alternate Strategy									
No.	Description								Estimate Total
1	Project Management								
2	Inspections								
3	Engineering								
4	Procurement								
5	Construction								
6	Commissioning								
7	Close-out								
8	Removal Cost								
	Total								

Assumptions: Key Assumptions	
Exclusions: **Specific Exclusions**	

Cash Flow for Option 3 - Alternate Strategy									
Unit No.									**SUM**
Gross Spend									
Total Cash Flow									