NFAT REVIEW OF MANITOBA HYDRO'S PROPOSED DEVELOPMENT PLAN ECS team in collaboration with MIPUG team

SCOPE OF SUPPORT FOR CACMB

Issue	Topics	Potential Consultant	Link to NFAT TOR Scope
1. NEED	Concept of "Need" per a NFAT Review	ECS team in collaboration with MIPUG team	#1 a) and #1 c)
1.1 FOR DOMESTIC SUPPLY	1.1.1 Load Forecast – approach and uncertainty	ECS team in collaboration with MIPUG team (not impact of future DSM)	#1 d)
	1.1.2 System Planning Criteria	ECS team in collaboration with MIPUG team	#1 c)
	1.1.3 Capability of Existing Generation and Imports	ECS team in collaboration with MIPUG team	#1 d)
	1.1.4 Capability of Existing MB transmission	ECS team in collaboration with MIPUG team	#1 d)
	1.1.5 Timing of "Need"	ECS team in collaboration with MIPUG team	#1
1.2 FOR EXPORT OPPORTUNITIES	1.2.1 Capability of Current MB Transmission – internal and interconnect (incl impact of current MH plans to backstop US wind)	ECS team in collaboration with MIPUG team	1 d)
	1.2.2 Capability of US transmission (incl impact of current MH plans to backstop US wind)	Dr. Doug Gotham, State Utility Forecast Group (SUFG)	1 d)
	1.2.3 Outlook for US electricity prices	Dr. Doug Gotham, State Utility Forecast Group (SUFG)	1 d) and 2 c) & d)
	1.2.4 Additional Tx	Dr. Doug Gotham, State	1 d) and 2 c) & d)

	requirements to effect planned contracts	Utility Forecast Group and ECS team in collaboration with MIPUG team (SUFG)	
	1.2.5 Planned export contracts – terms and risks	Dr. Doug Gotham, State Utility Forecast Group (SUFG) and ECS team in collaboration with MIPUG team (SUFG)	1 d) and 2 c) & d)
2.OPTIONS FOR DOMESTIC SUPPLY			
	2.1 Scope of Options Considered and Critical Assumptions for each	ECS team in collaboration with MIPUG team	2 a)
	2.2 Screening Criteria (including economic evaluation perspective)	ECS team in collaboration with MIPUG team	2 a)
	2.3 Alternative Development Plans Considered and Basis for Evaluation	ECS team in collaboration with MIPUG team	2 a)
	2.4 Risk Assessment -Approach and results	ECS team in collaboration with MIPUG team	2 e)
	2.5 Preferred Development Plan	ECS team in collaboration with MIPUG team	2 a)
3. OPTIONS FOR EXPORT OPPORTUNITY			
	3.1 Scope of Alternative Development Plans considered and critical assumptions for each Plan	ECS team in collaboration with MIPUG team	2 a) & d)
	3.2 Basis for Screening Potential Plans	ECS team in collaboration with MIPUG team	2 a)

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	3.3 Role of and Approach to Risk Assessment in initial Screening	ECS team in collaboration with MIPUG team	2 e)
	3.4 Proposed Development Plans for Evaluation	ECS team in collaboration with MIPUG team	2 a)
4. ECONOMIC EVALUATION OF ALTERNATIVES			
	4.1 Economic Perspective Used (e.g. Project, MH, MB or Society overall)	ECS team in collaboration with MIPUG team	2 a) & 2 j)
	4.2 Framework for Risk Assessment (e.g. How is "risk" addressed, assessed and reflected in the analysis - Hurdle Rates?)	ECS team in collaboration with MIPUG team	2 e)
	4.3 Critical Assumptions and Key Risks Assessed / Omitted	ECS team in collaboration with MIPUG team (no commentary on reasonableness of assumptions on export prices, US transmission availability, global warming impacts, contract terms)	2 a) c) d) & g)
	4.4 Risk-adjusted economic evaluation results	ECS team in collaboration with MIPUG team	2 a)
5. FINANCIAL EVALUATION OF ALTERNATIVES			
	5.1 Perspective Used (i.e. MH) and Implications	ECS team in collaboration with MIPUG team	2 g)
	5.2 Appropriate Financial	ECS team in collaboration	2 f) & g)

	Parameters (rates, financial	with MIPUG team	
	performance, cash		
	requirements)		
	5.3 Framework for Risk	ECS team in collaboration	
	Assessment	with MIPUG team	
	5.4 Key Risks Assessed /	ECS team in collaboration	2 e)
	Omitted (e.g. drought, BP	with MIPUG team (no	
	availability, capital costs,	commentary on	
	other program	reasonableness of	
	requirements)	assumptions on export	
		prices, US transmission	
		availability, global warming	
		impacts, contract terms, or	
		partnership arrangements)	
	5.5 Implications of/for MH's	ECS team in collaboration	2 g)
	Financial Policies	with MIPUG team	
	5.6 Implications for Future	ECS team in collaboration	2 f)
	Rates (Levels and Stability)	with MIPUG team	,
	,		
NOT IN SCOPE for Simpson	and Harper		
- Macro Economic Impacts			
- Local economic impacts			
- Socio Impacts			
- Macro environmental			
impacts			
- Alignment with Sustainable			
Development principles			