

Number of new "cases" in Round I & II NFAT IRs relative to Submission - December 3, 2013

	Economic # of "cases"	Splash Extraction # of "cases"	Financial # of "cases"
August 16 NFAT Submission	442	490	540
Round I NFAT IRs	414		630
Round II IRS	1397	530	1148
Total Round I and II	1811	530	1778
Ratio new/submission cases	4.1	1.1	3.3

A full case (economic plus financial modeling) requires developing all inputs for a 40 year generation sequence, developing capacity energy tables, running a full generation system monthly model over 40 years and 99 flow cases, determining economics (combining production costs from the simulations with capital and fixed costs,) for one scenario and then undertaking a full scale financial analysis with rates, debt-equity, interest coverage, etc.

Number of “cases” in August 16, 2013 Submission

	Description	Chapter	# of plans	Economic # of “cases”	Splash extraction # of “cases”	Financial # of “cases”
1.	Reference scenario economic evaluation	9	15	15	15	
2.	Probabilistic economic analysis - 27 scenarios: 3 Energy Prices x 3 Discount Rates x 3 Capital Costs - All 15 plans were run but only 12 plans were provided in Chapter 10 (note: 15 plans provided in Appendix 9.3)	10 & Appendix 9.3	15	$(15 \times 27) - 15 = 390$	$(15 \times 27) - 15 = 390$	
3.	Economic Sensitivity analysis – 5 year Drought - 4 years: 2014/15, 2021/22, 2027/28, 2032/33 - 3 scenarios: Energy Prices - low, reference, high (note: new SPLASH runs were not required)	10	4		$12 \times 4 = 48$	
4.	Sensitivity analysis: Climate Change - 5 flow cases: 5 th , 25 th , 50 th , 75 th , 95 th percentiles - 1 scenario - Ref-Ref-Ref	10	3	$5 \times 3 = 15$	15	
5.	Sensitivity analysis: Manitoba Load - 2 forecasts: Low (10%ile), High (90%ile) - 1 scenario – Ref-Ref-Ref	10	3	$2 \times 3 = 6$	6	
6.	Sensitivity analysis: 1 year In-Service Delay for K & C - 1 scenario – Ref-Ref-Ref	10	1	1	1	
7.	Probabilistic financial analysis - 27 scenarios: 3 Energy Prices x 3 Discount Rates x 3 Capital Costs - Drought (note: new SPLASH runs were not required)	11	8 3			$27 \times 8 = 216$ $3 \times 4 \times 27 = 324$
8.	2013 Update – reference scenario assumptions	12	5	5	5	
9.	2013 Update – 1.5x & 4x DSM Stress Test	12	4	7	7	
10.	2013 Update – Low Load Sensitivity	12	3	3	3	

Number of new "cases" in Round I NFAT IRs

Round I IR	Question	# of plans	Economic # of "cases"	Financial # of "cases"
PUB 200b	- Sunk cost amortization duration sensitivity	1		27
PUB 298	- Sensitivity with surplus energy sold as opportunity- both 2013 EEPF and EIA	1	$2 \times 27 = 54$	
LCA 3	- Re-evaluate plans with adjusted load plus new case 1A - reference scenario	7	7	7
LCA 4	- Re-evaluate plans with adjusted load plus new case 1A - all other scenarios	7	$26 \times 7 = 182$	$26 \times 7 = 182$
LCA 5	- Re-evaluate Plan 14 from LCA 3 but defer interconnection - Reference scenario	1	1	1
LCA 6	- Re-evaluate Plan 14 from LCA 3 but defer interconnection - All other scenarios	1	26	26
LCA 7	- Re-evaluate plans from LCA 4 & 6 but with hi/lo capital costs for thermal +/- 20%	8	$18 \times 8 = 144$	$18 \times 8 = 144$
LCA 398	- Rate increases with 75/25 goal	8		$8 \times 27 = 216$
MIPUG 34d	- Depreciation sensitivity	1		27
Total Cases		-	414	630

Number of new "cases" in Round II NFAT IRs.

Round II IR	Round I IR reference	Question	# of plans	Economic # of "cases"	Splash Extraction # of "cases"	Financial # of "cases"
LCA 469		<ul style="list-style-type: none"> - CCGT plan - 27 scenarios - Economics and financials - Pro forma and unit revenues - Economics and financials for 3 drought sensitivities i) 5 year, ii) 7 year and iii) 1929/30 – 1942/43 	1	27	3X4X3=36	27 + 3 X 4 X 27 = 351
LCA 470		<ul style="list-style-type: none"> - No new build plan - 27 scenarios - Economics and financials - Pro forma and unit revenues - Economics and financials for 3 drought sensitivities for 5 year, 7 year and 1929/30 – 1942/43 	1	27	3X4X3=36	27 + 3 X 4 X 27 = 351
MIPUG 18		Drought analysis for Plan 6	2		4 X 3 = 12	4 X 27 = 108
MIPUG 20	MIPUG 4e	Different rate design w/o sunk costs	1			27
PUB 332 I&m		- Preferred plan sensitivity but no WPS contribution	1	1		1
PUB 371 (a)	PUB 30	<ul style="list-style-type: none"> - 5 & 7 yr drought analysis - 3 existing plans and 1 new gas plan 	1	1	4	4
PUB 371 (b)	PUB 111	<ul style="list-style-type: none"> - New CCGT gas plan - 27 scenarios? - Economics and financials 	1	1 x 27 = 27		1 x 27 = 27
PUB 371 (c)	PUB 118 (c)	<ul style="list-style-type: none"> - New CCGT gas plan - 27 scenarios? - Provide average unit revenues 	1	1 x 27 = 27		1 x 27 = 27
PUB 376 (c)		<ul style="list-style-type: none"> - All Gas and PDP plans - Financials with new export prices - Ref-Ref-Ref 	2	2		2
PUB 382		- 1 yr deferral of Keeyask	1	27		27
PUB 420 (a)	PUB 167	<ul style="list-style-type: none"> - All plans - 27 scenarios - Economic evaluation using new interest rates 	15	15 x 27 = 405		
PUB 420 (b)	PUB 172	<ul style="list-style-type: none"> - All plans - 27 scenarios - Economic evaluation using new export prices 	15	15 x 27 = 405		

Round II IR	Round I IR reference	Question	# of plans	Economic # of "cases"	Extraction # of "cases"	Financial # of "cases"
PUB 420 (c)	PUB 173	- All plans - 27 scenarios - Economic evaluation reference discount rate of 7%(assumed other rates adjusted)	15	15 x 27 = 405		
PUB 420 (d)	PUB 175	- CCGT plan described in PUB I-111 - 27 scenarios (done for 371b)	1			
PUB 420 (e)	PUB 194 (b)	- 5 yr drought assuming no carbon on drought plans- only ref prices	4	4		
PUB 420 (e)	PUB 194 (c)	- Ref-Ref-Ref - 5 yr drought assuming no carbon on drought plans- only ref prices	4	4		
PUB 420 (e)	PUB 194 (d)	- Ref-Ref-Ref - 5 yr drought assuming 50% carbon on drought plans- only ref prices	4	4		
PUB 420 (g)	PUB 195 a	- Ref-Ref-Ref - Climate change plans assuming 50% carbon adder	3	3 X 4 = 12		
PUB 420 (g)	PUB 195 b	- Ref-Ref-Ref - Climate change plans assuming 7% d.r.	3	3 X 4 = 12		
PUB 420 (g)	PUB 199	- Financials on PUB specific gas plan identified in PUB I-111 (done for 371b)	1			
PUB 420 (h)	PUB 195 d	- Ref-Ref-Ref - Climate change plans assuming 50% carbon (done for 371b)	3			
PUB 434		- All plans - Financials on not recovering sunk costs	8			8 x 27 = 216
PUB 462b		- Zero CO2 cost in export prices	7	7		7
LCA 490/491		Extraction of all detailed SPLASH output for 2012 and 2013 analysis from submission For all 27 scenarios By month and for all 99 flow years and for on and off peak			442 (Equivalent to 120,000 printed pages)	
total				1397	530	1148