

CLRTPG 2018 CASE RESOURCES									
UTILITY	RESOURCE TYPE - NAMEPLATE MW								
	WIND	SOLAR	BIOMASS	GEO THERM	HYDRO	CT	CC	(1) BASE	TOTAL
AQUILA	103	(2) 0	0	0	0	0	0	0	103
CSU	97	0	0	0	0	0	0	0	97
PRPA	55	0	0	0	0	0	0	0	55
(3) PSCo	1400	425	(2) 0	0	0	(4) 130	(5) 470	150	2575
(6) TSGT	167	20	0	0	(2) 0	0	0	600	787
TOTAL	1822	445	0	0	0	130	470	750	3617

Notes:

- (1) Baseload resource near Lamar, CO.
- (2) Aquila Solar (2MW), PSCo Biomass (4 MW), and TSGT Hydro (16 MW) not included in study. Levels are low and injection location not defined.
- (3) PSCo resources shown include 2007 CRP except Arapahoe Repower (480 MW) and proposed resources
- (4) PSCo 130 MW Combustion Turbine at Pawnee
- (5) PSCo 470 MW CC total at Pawnee
- (6) TSGT solar / hydro mix assumed for study

CLRTPG 2018 NEW RESOURCE DISPATCH															L&R (1)		DISPATCH TO BALANCE NEW RESOURCE		
INJECTIONPOINT FOR STUDY															1761				
SCENARIO		1 Ault	2 Peetz	3 Pawnee	4 Wray	5 Burlington	6 Lamar	7 Big Sandy	8 Walsen	S1 SLV	S2 Pueblo	LRS	DJ	TOTAL	DIFF L&R	UTILITY	MW BALANCE (2)	UNITS ADJUSTED	
A HIGH	WIND	55	410	500	0	0	770	0	87	0	0	0	0	1822		AQUILA	-29		
	SOLAR	0	0	0	0	0	0	0	0	445	0	0	0	445		CSU	56		
	CT/CC	0	0	0	0	0	0	0	0	0	0	0	0	0		PRPA	-48		
	BASE	0	0	0	0	0	750	0	0	0	0	0	0	750		PSCO	-663		
	TOTAL	55	410	500	0	0	1520	0	87	445	0	0	0	3017	1256	TSGT	-572		
																	-1256		
A LOW	WIND	0	38	63	0	0	80	0	5	0	0	0	0	186		AQUILA	74		
	SOLAR	0	0	0	0	0	0	0	0	255	0	0	0	255		CSU	153		
	CT/CC	0	0	600	0	0	0	0	0	0	0	0	0	600		PRPA	7		
	BASE	0	0	0	0	0	750	0	0	0	0	0	0	750		PSCO	121		
	TOTAL	0	38	663	0	0	830	0	5	255	0	0	0	1791	30	TSGT	-385		
																	-30		
B	WIND	55	0	0	0	0	770	0	87	0	0	600	310	1822		AQUILA	-29		
	SOLAR	0	0	0	0	0	0	0	0	445	0	0	0	445		CSU	56		
	CT/CC	0	0	0	0	0	0	0	0	0	0	0	0	0		PRPA	-48		
	BASE	0	0	0	0	0	750	0	0	0	0	0	0	750		PSCO	-663		
	TOTAL	55	0	0	0	0	1520	0	87	445	0	600	310	3017	1256	TSGT	-572		
																	-1256		
C	WIND	200	300	750	100	1150	1850	200	100	0	0	0	0	4650		AQUILA	-29		
	SOLAR	0	0	0	0	0	0	0	0	0	0	0	0	0		CSU	56		
	CT/CC	0	0	0	0	0	0	0	0	0	0	0	0	0		PRPA	-48		
	BASE	0	0	0	0	0	750	0	0	0	0	0	0	750		PSCO	-933		
	TOTAL	200	300	750	100	1150	2600	200	100	0	0	0	0	5400	3639	TSGT	-572		
																	-1526		
D	WIND	0	38	63	0	0	80	0	5	0	0	0	0	186		AQUILA	-29		
	SOLAR	0	0	0	0	0	0	0	0	1000	1000	0	0	2000		CSU	56		-25.81
	CT/CC	0	0	0	0	0	0	0	0	0	0	0	0	0		PRPA	-48		62.16
	BASE	0	0	0	0	0	750	0	0	0	0	0	0	750		PSCO	-680.37		-42.72
	TOTAL	0	38	63	0	0	830	0	5	1000	1000	0	0	2936	1175	TSGT	-572		-509.08
																	-1526		-1195.82

Notes:

(1) L&R value represents capacity need for CLRTPG as derived from the L&R spreadsheets:

BHP/AQUILA	74
CSU	153
PSCO	1312 Need = CRP+Need-Arapahoe Repower: 1076+716-480
PRPA	7
TSGT	215 Need = Proposed resource-Excess: 600-385
TOTAL	1761

(2) MW BALANCE - Increase (+) or decrease (-) required based on LSE's resource addition above L&R need

Example Scenario A High			
LSE	Need	Add Res	MW BAL
BHP/AQUILA		74	103 -29
CSU		153	97 56
PSCO		1312	1975 -663
PRPA		7	55 -48
TSGT		215	787 -572
TOTAL		1761	3017 -1256

Name	Description
Scenario A High Wind	This scenario models wind resources in Colorado at their nameplate values. This is for the purpose of planning transmission to accommodate full wind output. Other generation will be backed down for L&R balance. This could include some of the "other" generation capacity listed, or existing units.
Scenario A Low Wind	This scenario models resources at the locations determined by the LSE's resource planning departments, taking into account the capacity factors each LSE assigns to each type of generation. This scenario primarily shows generation to meet RPS requirements, or committed levels for renewable portfolios for each LSE.
Scenario B High Wind	This scenario models wind resources in Wyoming, and a link to Colorado known as the Wyoming/Colorado Intertie (WCI). Other wind resources in Colorado will be backed down from their nameplate values to accommodate this. Other generation will also be backed down for L&R balance. This could include some of the "other" generation capacity listed, or existing units.
Scenario C High Wind	This scenario models wind resources in approximate proportion to the capability of each Generation Development Area (GDA) that they represent. Generation will be backed down for L&R balance. This could include some of the "other" generation capacity listed, or existing units.
Scenario D High Solar	This scenario models high solar output from two Generation Development Areas (GDA). Generation will be backed down for L&R balance. This could include some of the "other" generation capacity listed, or existing units.