

# Base Resource Scheduling Flexibility Experiments Results Analysis Report

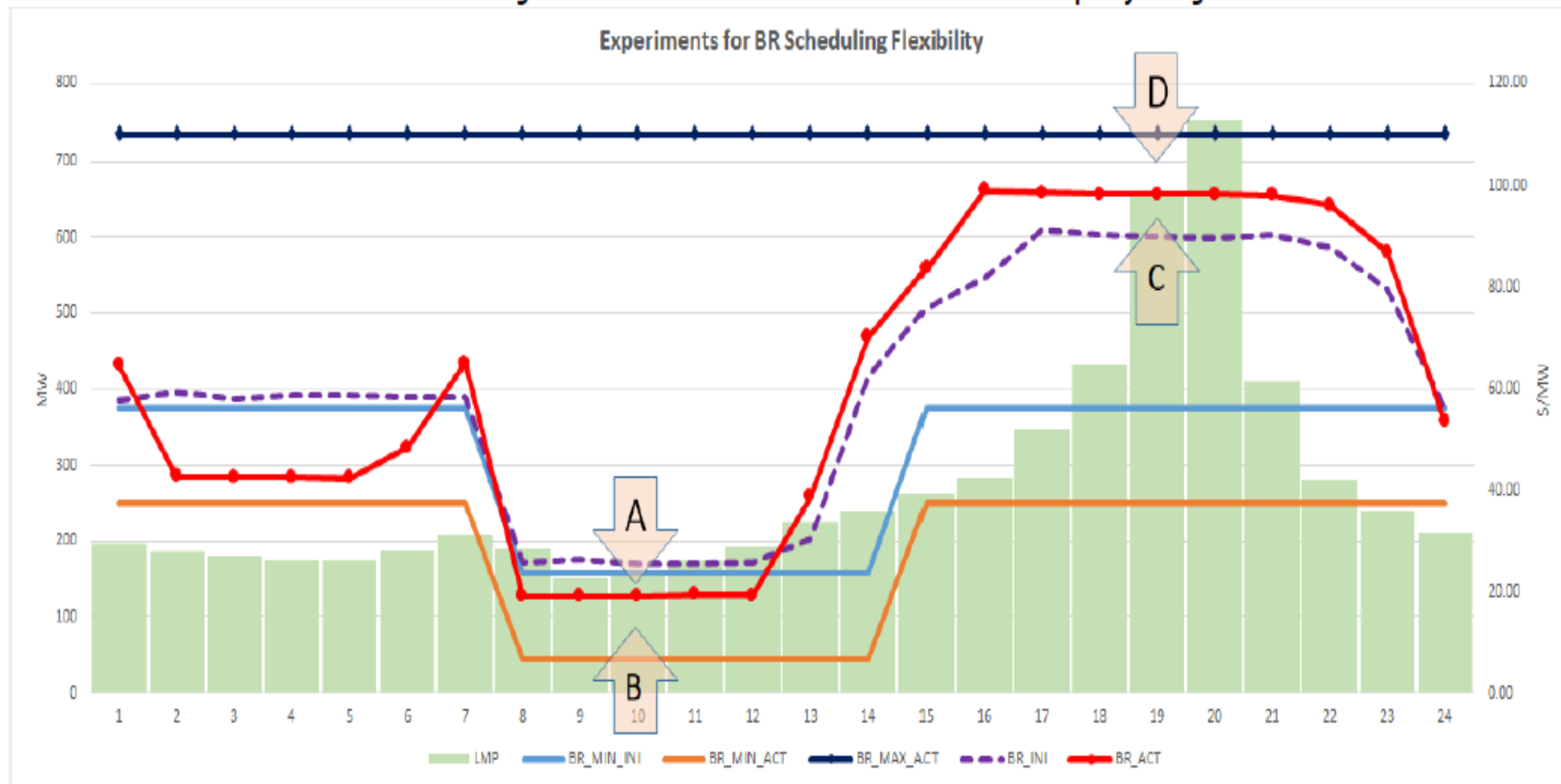
TABLE 1. Summary of Benefits, All Experiments, All Customers, January 1, 2020 - April 30, 2020

YEAR_MO	EXPERIMENT	LVH_MWH	LVH_AVE_LMP	HVH_AVE_LMP	RESCHEDULING_BENEFITS, \$	RESIDUAL_LVH_MWH	RESIDUAL_POTENTIAL_BENEFITS, \$	RESIDUAL_LVH_MWH_CAPPED	RESIDUAL_CAPPED_BENEFITS, \$
2020_01	0	0	21.6981	41.5936	0	0	0	0	0
	1	7,302	22.8250	40.7313	132,363	2,580	46,158	2,579	46,135
	2	211	26.3815	48.9993	4,761	62	1,393	62	1,393
2020_02	0	0	17.3394	39.8150	0	0	0	0	0
	1	5,742	15.2783	38.1071	130,475	5,102	113,406	5,078	112,884
	2	1,873	12.1962	36.9749	47,020	2,846	71,069	2,796	69,980
2020_03	1	356	25.0890	42.6739	6,257	306	5,373	299	5,253
	2	8,244	17.5499	36.9351	163,600	13,681	266,883	13,327	260,563
2020_04	1	356	13.9759	31.7753	6,188	1,848	33,351	1,768	31,836
	2	5,005	15.7678	30.7810	75,727	17,535	271,667	16,927	261,031
		29,089			566,391	43,960	809,301	42,835	789,074

LVH_MWH	= Total Initial BR Min MW less Total Scheduled BR MW by ALL Customers for the 6 lowest-priced hours in the day
LVH_AVE_LMP	= Average Day Ahead MEEA LMP for the 6 lowest-priced hours in the day
HVH_AVE_LMP	= Average Day Ahead MEEA LMP for the 6 highest-priced hours in the day
RESCHEDULING_BENEFITS, \$	= $LVH\_MWH * (HVH\_AVE\_LMP - LVH\_AVE\_LMP)$
RESIDUAL_LVH_MWH	= Total Scheduled BR MW by ALL Customers less Total Actual BR Min MW for the 6 lowest-priced hours in the day
RESIDUAL_POTENTIAL_BENEFITS, \$	= $RESIDUAL\_LVH\_MWH * (HVH\_AVE\_LMP - LVH\_AVE\_LMP)$
RESIDUAL_LVH_MWH_CAPPED	= $\min(RESIDUAL\_LVH\_MWH, \text{Total Actual BR Max MW less Total Scheduled BR MW by Customer for the 6 highest-priced hours in the day})$ , calculated for each customer
RESIDUAL_CAPPED_BENEFITS, \$	= $RESIDUAL\_LVH\_MWH\_CAPPED * (HVH\_AVE\_LMP - LVH\_AVE\_LMP)$



**CHART 1. Illustration of BR made available for Higher-Value Hours: MWh Rescheduled and Available Capacity at Higher-Value Hours**



**LVH\_MWH** = "A" = Total Initial BR Min MW less Total Scheduled BR MW by ALL Customers for the 6 lowest-priced hours in the day  
**RESCHEDULING\_BENEFITS, \$** = LVH\_MWH \* (HVH\_AVE\_LMP - LVH\_AVE\_LMP), benefits realized by rescheduling "A" into higher value hours in "C"  
**RESIDUAL\_LVH\_MWH** = "B" = Total Scheduled BR MW by ALL Customers less Total Actual BR Min MW for the 6 lowest-priced hours in the day  
**RESIDUAL\_LVH\_MWH\_CAPPED** = min(RESIDUAL\_LVH\_MWH, Total Actual BR Max MW less Total Scheduled BR MW by Customer for the 6 highest-priced hours in the day), calculated for each customer  
 = min("B", "D"), calculated for each customer



# Impact of BR Experiments to the Max Peaking Program

TABLE 2. Estimate of Impact of BR Rescheduling to the Max Peaking Program

YEAR_MO	EXPERIMENT	MAXPK_MWH	LVH_AVE_LMP	HVH_AVE_LMP	AVERAGE_MAXPK_BENEFIT, \$/MWH	BR_RESCHEDULING_IMPACT, \$
2020_01	0	0	20.6835	46.5091	10.9401	0
	1	3,937	21.2438	43.0268	10.9401	-43,074
	2	122	25.3586	52.1288	10.9401	-1,336
2020_02	0	0	15.5276	42.2105	11.3506	0
	1	2,968	12.7944	40.4558	11.3506	-33,691
	2	1,045	10.6295	40.2665	11.3506	-11,859
2020_03	1	204	24.4672	45.5831	8.3467	-1,704
	2	4,439	15.9227	39.9461	8.3467	-37,049
2020_04	1	180	12.9470	38.1482	5.6507	-1,018
	2	2,808	14.8632	34.2890	5.6507	-15,868
		<u>15,704</u>				<u>-145,599</u>

- MAXPK\_MWH = Total Initial BR Min MW less Total Scheduled BR MW by ALL Customers for the 3 lowest-priced hours in the day
- LVH\_AVE\_LMP = Average Day Ahead MEEA LMP for the 3 lowest-priced hours in the day
- HVH\_AVE\_LMP = Average Day Ahead MEEA LMP for the 3 highest-priced hours in the day
- AVERAGE\_MAXPK\_BENEFIT, \$/MWH = Max Peaking Monthly Average Difference of Sale Price and Purchase Price
- BR\_RESCHEDULING\_IMPACT, \$ = MAXPK\_MWH \* (AVERAGE\_MAXPK\_BENEFIT, \$/MWH) \* -1

