SELF-COMMITMENT DECISION FACTORS

PRESENTED BY:

CPS Energy
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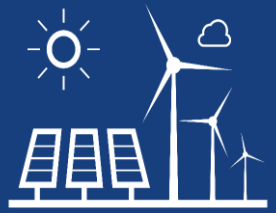
Informational Update
RCWG & WMWG Joint Workshop on Reliability Unit Commitment (RUC) and Verifiable Costs

HOW WE SERVE BY THE NUMBERS [1]

Up to **14%** of annual revenue goes to the City of San Antonio's General Fund



Largest Community-Owned Electric & Natural Gas Utility in the U.S.

#1 Solar Power Production in Texas & **#5** in the Nation [2]

#2 Wind Power Production in Texas

930K Electric

381K Gas

Our Customers

$9.1B

City payments since October 1942

163

Years of Serving San Antonio

Our Mission

To serve our community through reliable, competitively priced, and sustainable energy services in an equitable manner.

~3,000

Team Members

[1] As of 1/31/2023

[2] Environment Texas Research & Policy Center. "Shining Cities 2022: The Top US Cities for Solar Energy"

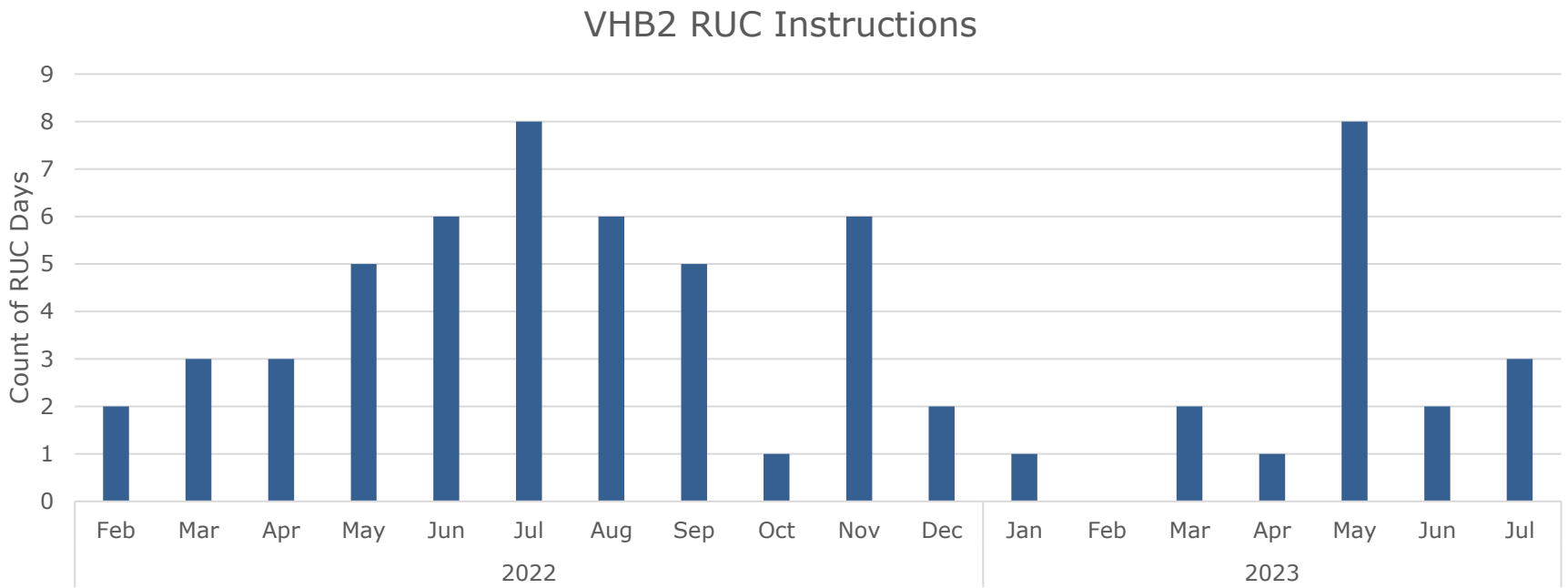
VH BRAUNIG STATION

UNIT NAME	UNIT CODE	COUNTY	FUEL	ZONE	IN SERVICE	INSTALLED CAPACITY RATING (MW)
V H BRAUNIG STG 1	BRAUNIG_VHB1	BEXAR	GAS-ST	SOUTH	1966	225.0
V H BRAUNIG STG 2	BRAUNIG_VHB2	BEXAR	GAS-ST	SOUTH	1968	240.0
V H BRAUNIG STG 3	BRAUNIG_VHB3	BEXAR	GAS-ST	SOUTH	1970	420.0

Unconfirmed Retirement Capacity		
Unit Name	2024	2025
V H BRAUNIG STG 1	-	217
V H BRAUNIG STG 2	-	230
V H BRAUNIG STG 3	-	412

The VH Braunig Generation facility has three gas steam resources that have been in service 53, 55 and 57 years. Retirement of these resources is near.

NUMBER OF RUC INSTRUCTIONS



The VHB2 unit has received RUC instructions 64 times in 2022-23. This presentation will review the May 2023 RUC instructions

MAY RUC OF VHB2

May 2023 RUC Deployments of VHB2							
						Reserve MW less RUC	
Date	RUC Time	First Hour	RUC Hours	Number CPS Units RUC	Total Units RUC	Average Reserves	Minimum Reserves
5/1/2023	2AM	16	6	1	6	710	460
5/8/2023	7AM	15	6	1	4	1430	1340
5/12/2023	12AM	13	9	1	2	1000	550
5/18/2023	10AM	17	6	2	6	1140	1080
5/20/2023	10AM	19	6	2	4	1120	950
5/23/2023	6AM	14	8	1	11	990	750
5/25/2023	8AM	16	6	2	5	1070	850
5/26/2023	7AM	15	8	2	4	810	690

Why wasn't the unit self-committed? CPS Energy had enough resources committed to meet energy and ancillary services plus contingencies.

The reserves are from CPS Energy thermal generation. Renewable resources are not included.

COMMITMENT DECISIONS

Resources are offered in the DAM

- If not awarded in DAM, most likely will not self commit
- Price signals and market intelligence is reviewed

Other risk factors

- Environmental concerns
- Reserves committed from other resources
- Age of units
- Natural gas availability
- Season; save for peak seasons
- Number of starts per month/year

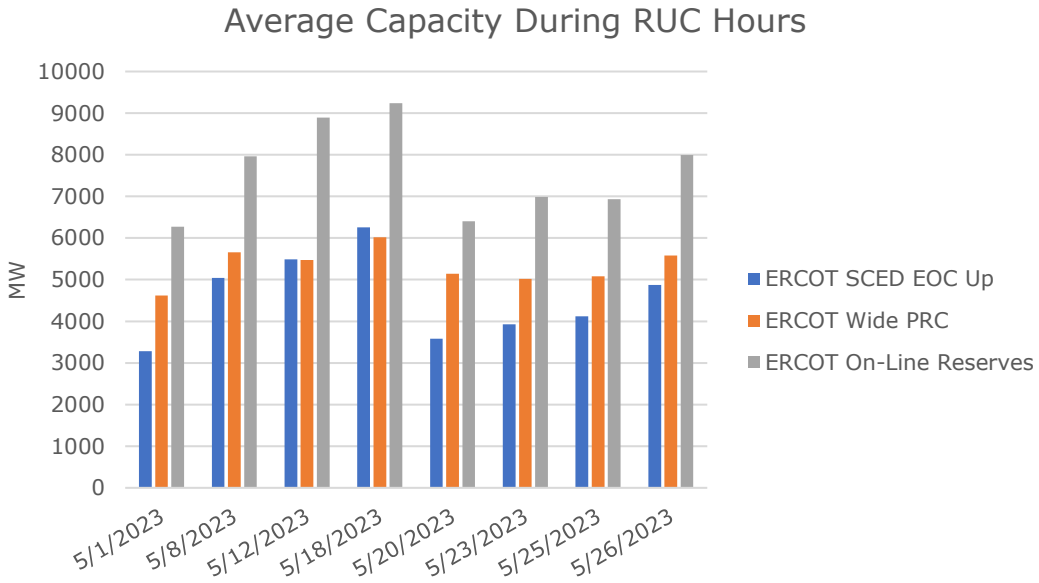
SETTLEMENT RESULTS

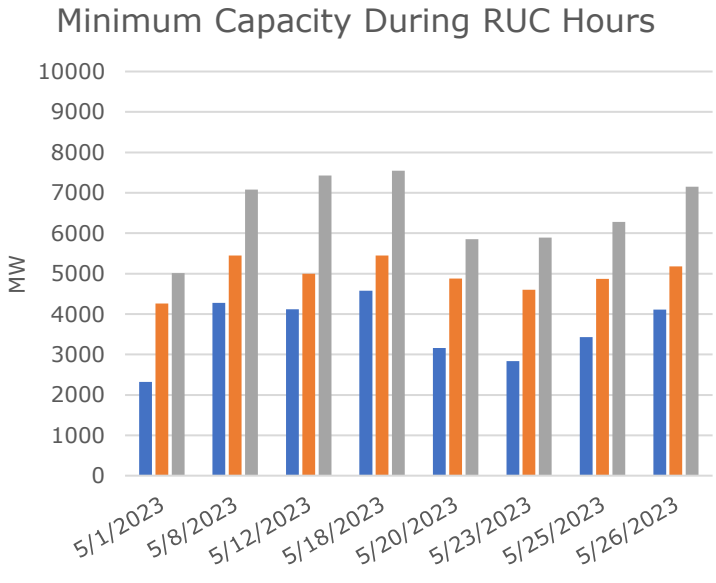
May 2023 RUC Deployments of VHB2

Date	RUC Time	RUC Hours	Status	Average RTORDPA	Claw back or Make whole	NOx Tons
5/1/2023	2AM	6	ONRUC	8	Clawback	0.64
5/8/2023	7AM	6	ONOPTOUT	9	NA	0.42
5/12/2023	12AM	9	ONOPTOUT	0	NA	0.50
5/18/2023	10AM	6	ONRUC	1	Make Whole	0.32
5/20/2023	10Am	6	ONRUC	8	Clawback	0.39
5/23/2023	6AM	8	ONOPTOUT	3	NA	0.60
5/25/2023	8AM	6	ONRUC	1	Make Whole	0.42
5/26/2023	7AM	8	ONRUC	0	Make Whole	0.48

May 1st had the highest real time prices with high Reserves adder and relatively high Reliability adder. A total of 3.8 tons of NOx produced on these days.

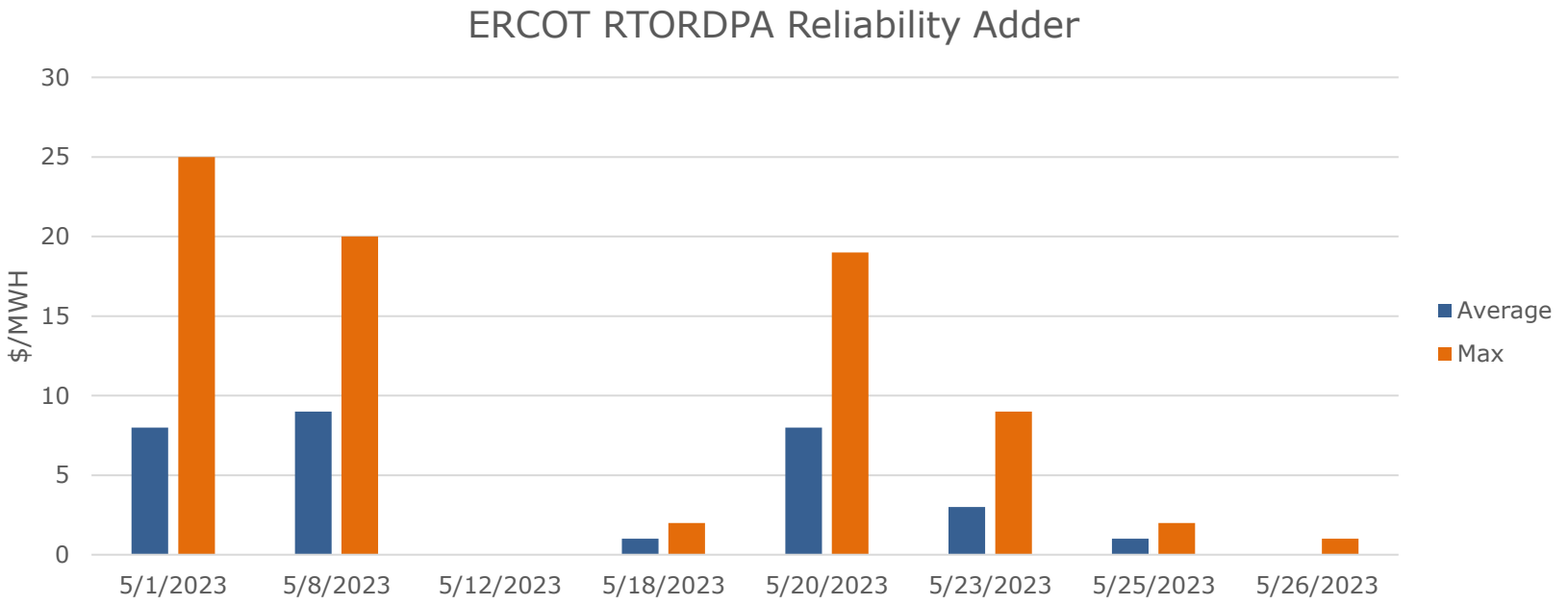
ERCOT RESERVES





Hourly averages during the RUC hours of VHB2

RTORDPA



Is RTORDPA the right metric to show the resource should have self-committed?

Hourly averages during the RUC hours of VHB2

SUMMARY

- Verifiable cost recovery is not sufficient to cover the risk of unit commitment
  - Catastrophic failures won't be covered
  - Replacement costs won't be covered
- Multiple factors in unit commitment decisions
  - 100% claw back would have low weight
  - Emissions and other factors will increase in weight over time
- 100% claw back is the wrong lever

Discussion