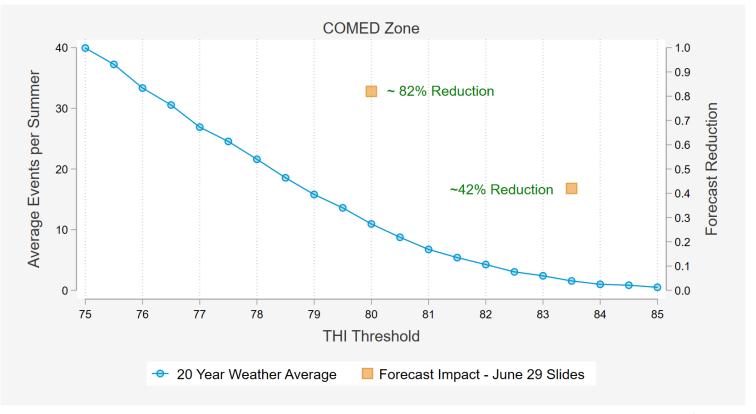


CORE ISSUE FOR STATE PROGRAMS

- Compensation mechanism is commensurate with frequency of shaving
 - Capacity performance DR = full capacity clearing price, infrequent performance (historically)
 - > Summer Peak Shaving = fraction of capacity clearing price. Frequent performance required to realize value
 - Challenging economics for existing summer resources
 - > Almost certainly not adequate to spur development of *new* mass-market resources
- States with existing resources will need to be mindful of sunk cost fallacy
- Is there a sweet spot where the THI or load forecast threshold will provide enough compensation to cover ongoing costs without fatiguing participants or increasing incentive payments?
 - > Traditional dispatch frequencies will likely only deliver 30-50% load forecast adjustment

PJM ANALYSIS – EXPECTED SHAVING DAYS AND VALUATION

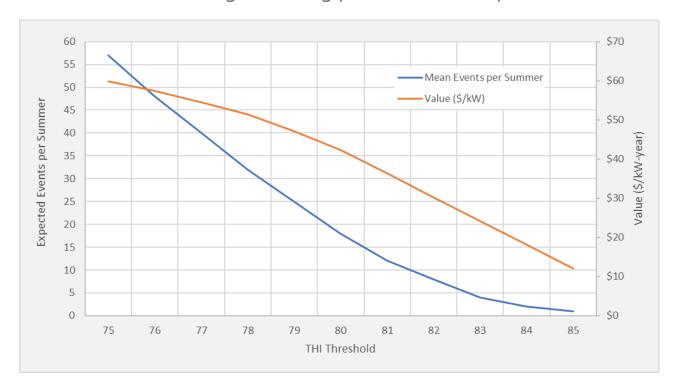
- AC Rider is \$40 per summer
 - > Assume 1 kW reduction per participant
- At a THI threshold of 82 valuation will be approximately 50% of capacity price
 - > 4.25 days (25.5 hours)
- Assume clearing price is \$70/kW-year
 - Incentive payments alone will exceed LFA revenue
 - Program will "lose" at least \$5 per participant (cost = \$40, benefit = \$35)
- Current treatment group/control group design is an LFA issue
 - Control group produces no peak shaving



PROGRAM ADMINISTRATOR CHALLENGE (HYPOTHETICAL)

Assume EMAAC price from 2021/2022 BRA

- > \$165.73/MW-day, \$60.49/kW-year
- Above average clearing price (historically)



THI	Mean Shaving Days	LFA Impact	Value (\$/kW-year)
75	57	99%	\$59.89
76	48	95%	\$57.47
77	40	90%	\$54.44
78	32	85%	\$51.42
79	25	78%	\$47.18
80	18	70%	\$42.34
81	12	60%	\$36.29
82	8	50%	\$30.25
83	4	40%	\$24.20
84	2	30%	\$18.15
85	1	20%	\$12.10