



California Public
Utilities Commission

CSP Wrap Up and Enforcement Mechanism Intro

October 5, 2023

3:00 p.m. – 5:00 p.m. PT

Hosted by the Energy Division of the California Public Utilities Commission

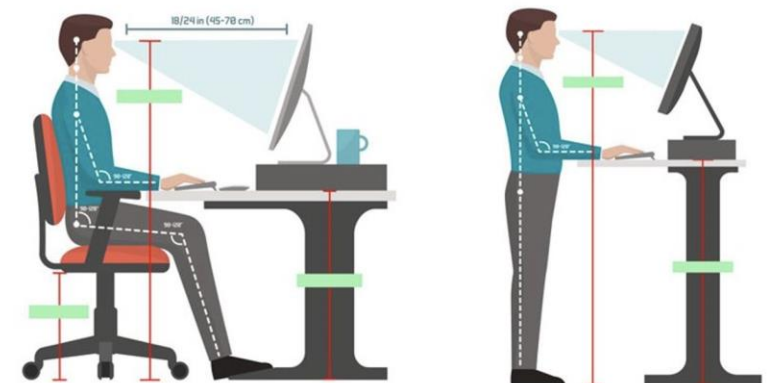
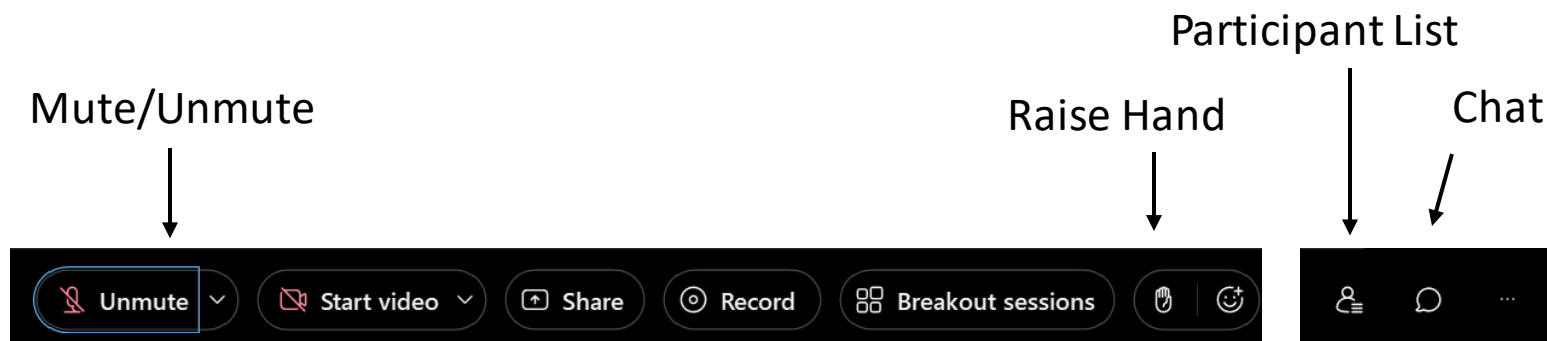
With support from the California Energy Commission



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Logistics

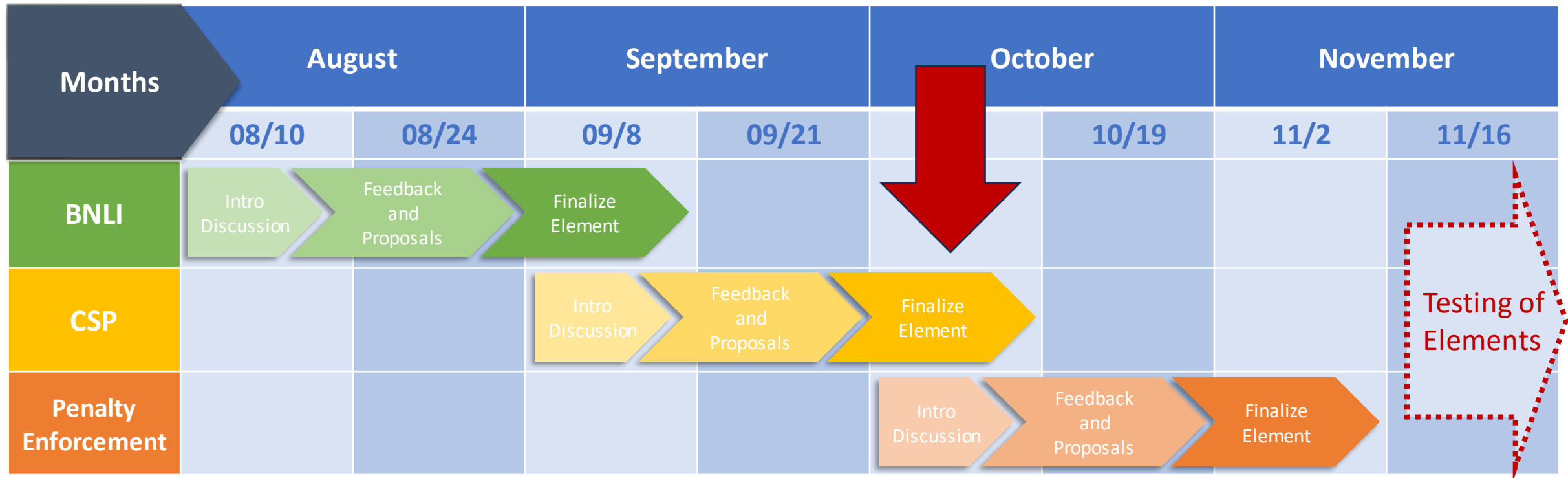
- Presentation will be uploaded onto [DR Workshops](#) website at a later time.
- All attendees are muted upon entry. Please stay muted unless you are speaking. Only one person should be speaking at a time.
- Please “raise your hand” if you would like to speak or use the chat.
- Safety: (1) Note surroundings & emergency exits, (2) Ergonomic check, (3) In case of emergency, call 9-1-1.
- Refrain from discussing any other proceedings in case Commissioners are present to avoid inadvertent ex-partes.





Bi-Weekly Schedule through November

Workshop Schedule



Agenda

Note that times are approximate. There will be a brief pause for questions after each section. Participants may raise their (virtual) hand to ask a question at any time.

#	Topic	Time
1	Introductions, Logistics and Scheduling	3:00 PM – 3:15 PM
2	Review of Shortfall Penalty Comments	3:15 PM – 4:00 PM
~~	~Break~	4:00 PM – 4:05 PM
3	Enforcement Mechanism Introduction	4:05 PM – 4:25 PM
4	Next Steps & Process Questions	4:25 PM – 5:00 PM

Review of Shortfall Penalty Comments

Staff consensus on preliminary testing methodologies

Reminder of Key Points

- Penalty cap at zero revenue
 - Beyond value of committed capacity
- Penalty buffer/threshold
 - How best to account for uncertainty in DR measurement
- Adjustment for Over-Performance
 - Counting for capacity delivered above committed capacity

Party Comments Received

Party	Penalty cap	Performance buffer	Over-performance adjustment
CLECA	Supports; no penalties beyond contracted capacity	Supports 5.5% buffer	Supports counting delivered capacity above 20% of commitment at a discounted rate (e.g. 90% of delivered value)
PG&E	N/A	Supports 5.5% symmetric buffer	Above 105.5%, multiply committed capacity by 1.055
CAISO	Supports; no penalties beyond contracted capacity	Supports; testing of specific value is reasonable	Supports no adjustment

Staff Determination on Key Points

- CSP cap at zero revenue
 - Agree a penalty cap at zero revenue is sufficient
- Performance Threshold
 - No threshold
 - Performance metric should account for uncertainty in measurement
- Adjustment for Over-Performance
 - No adjustment
 - If over performed than capacity requested will be rewarded
 - Over-performance should not count for Resource Adequacy
 - RA capacity is a commitment; overperformance does not offset RA procurement needs

Plan for Parametrization

- Penalty rate to operate as phase in scalar
- Scalar variable functionally adjust the penalty cap
 - i.e. x intercept will move depending on the λ value

INPUTS		
		Units
% Demonstrated Capacity	75%	%
Capacity Price	\$120.00	\$/kW-year
Committed capacity (kW)	50,000	kW
Penalty Rate (Lamba)	1.00	
OUTPUTS		
Demonstrated capacity (kW)	37,500	kW
Revenue if commitment met	\$6,000,000	\$
Revenue with demonstrated ca	\$4,500,000	\$
Penalty	\$1,500,000	\$
Final revenue	\$3,000,000	\$
Final revenue (% of committed)	50%	%

5 min Break

Penalty Enforcement Mechanism Introduction

Definition of Problem Space



Summary of Elements

Elements from CEC proposal for further discussion in this working group

BNLI Formula

- Intention to address the effect of partial dispatches on the assessed performance of DR resources
- Uses ratio of delivered load impacts to bid amount in *ex post* calculations of delivered capacity
- **Key Challenges:** Could incentivize DR resources to inflate bid prices, deviate from dispatch instructions

CSP Design

- Revenue decreased proportionally by shortfalls in demonstrated capacity
- Proposed penalty mechanism initiates after a 94.5% shortfall threshold
- **Key Challenges:** Striking right balance of incentives and penalties, “net payment” vs. “claw-back”

CSP Enforcement

- Definition needed on enforcement mechanism and administration of penalty
- Role of State Agencies/CAISO
- **Key Challenges:** Lack of visibility into contract prices, no direct authority over third party DRPs, potential need for collateral payments

From Original CEC Proposal

“The California ISO should implement the proposed penalty mechanism.... since the California ISO has jurisdiction over all relevant DR resources.”

“The CPUC may implement the methodology for DR auction mechanism resources and utility DR programs if the California ISO cannot do so by the 2025 RA compliance year.”

Penalty Enforcement Mechanism (PEM)

- Primary Questions:
 - Which agency/organization is responsible for administering the whole process and determining the penalty amount?
 - A mature, well-established protocol could ideally be with the CAISO
 - Ability to hold back revenue
 - Penalties beyond holding back revenue feasible?
 - A new, developing process (possibly phased in) would be best at the CPUC
 - Who is the responsible party for any potential penalties?
 - The CPUC has limited or no ability to administer penalties to DRPs, it would have to be on LSE.
 - LSEs would have to recover via agreed-upon contract terms

Penalty Enforcement Mechanism (PEM)

- PEM was not part of the previous Working Group process.
- Requesting comments from parties on feasibility, roadblocks, issues, and proposed PEMs.
- The determination of the PEM can continue to be considered during the testing period.

Next Steps

Proposals and Next Meeting

Proposals on Enforcement Mechanism

- Written proposals and comments due on October 13th
- Should address concerns raised in this presentation
 - Feasibility, roadblocks, issues, and proposed PEMs.

Format of Next October 19th Meeting

- Invitation to present mechanism adjustments (limited to the explicit penalty formula)
- 10 mins to present with 5 mins of Q&A (subject to reduction depending on number of presenters)
- Presentations due October 17th and will be shared during the October 19th meeting



California Public Utilities Commission

Thank you!

Appendix



24-Slice QC Methodology Proposal

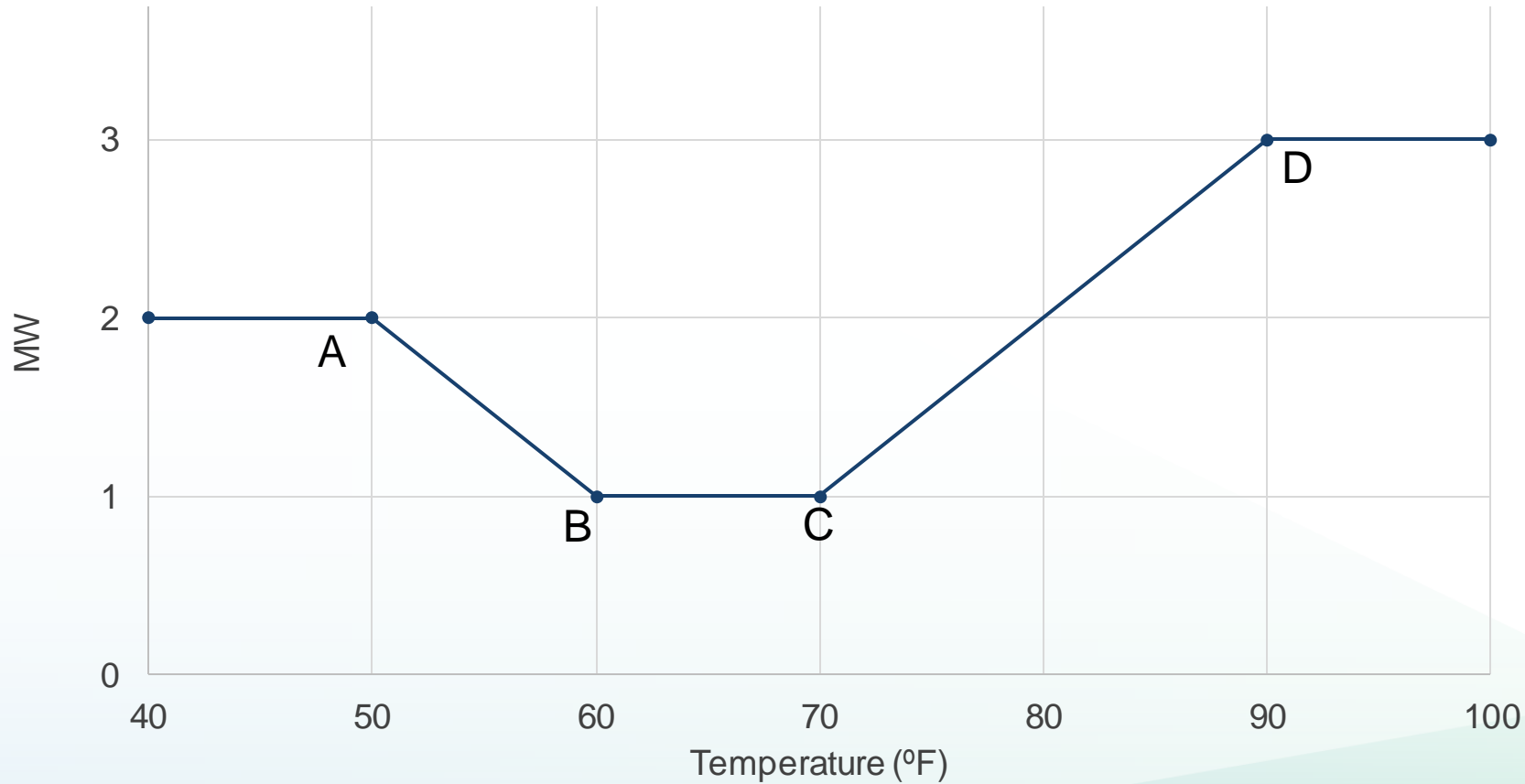
Erik Lyon

April 14, 2022



1) Hourly Capability

For hour x and month/season y



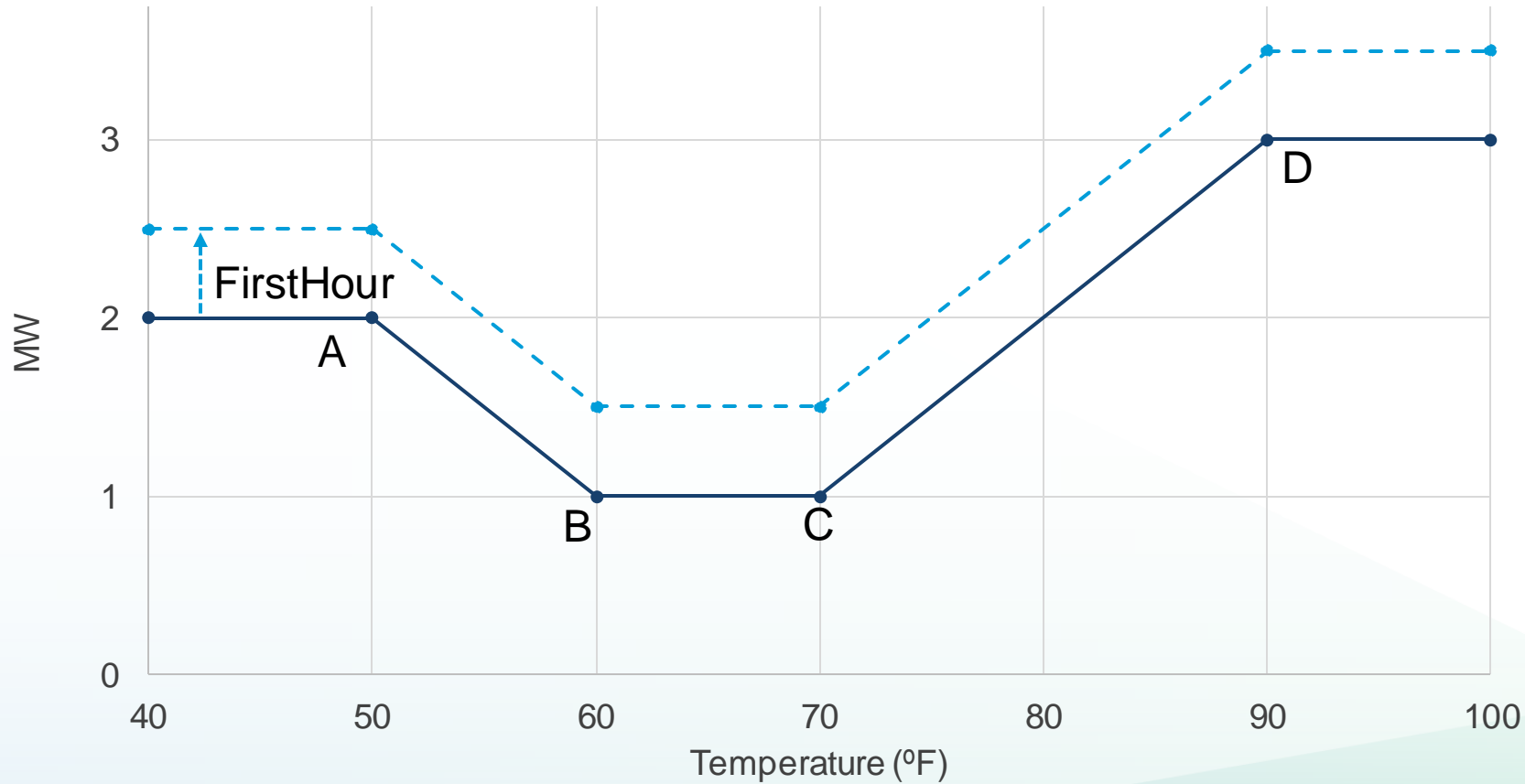
Point	Required?	Load Impact Constraint
A	No	$A > B$
B	Only if A submitted	$B = C$
C	Only if D submitted	$C = B$
D	No	$D > C$

$$A < B \leq C < D$$



1) Hourly Capability

For hour x and month/season y



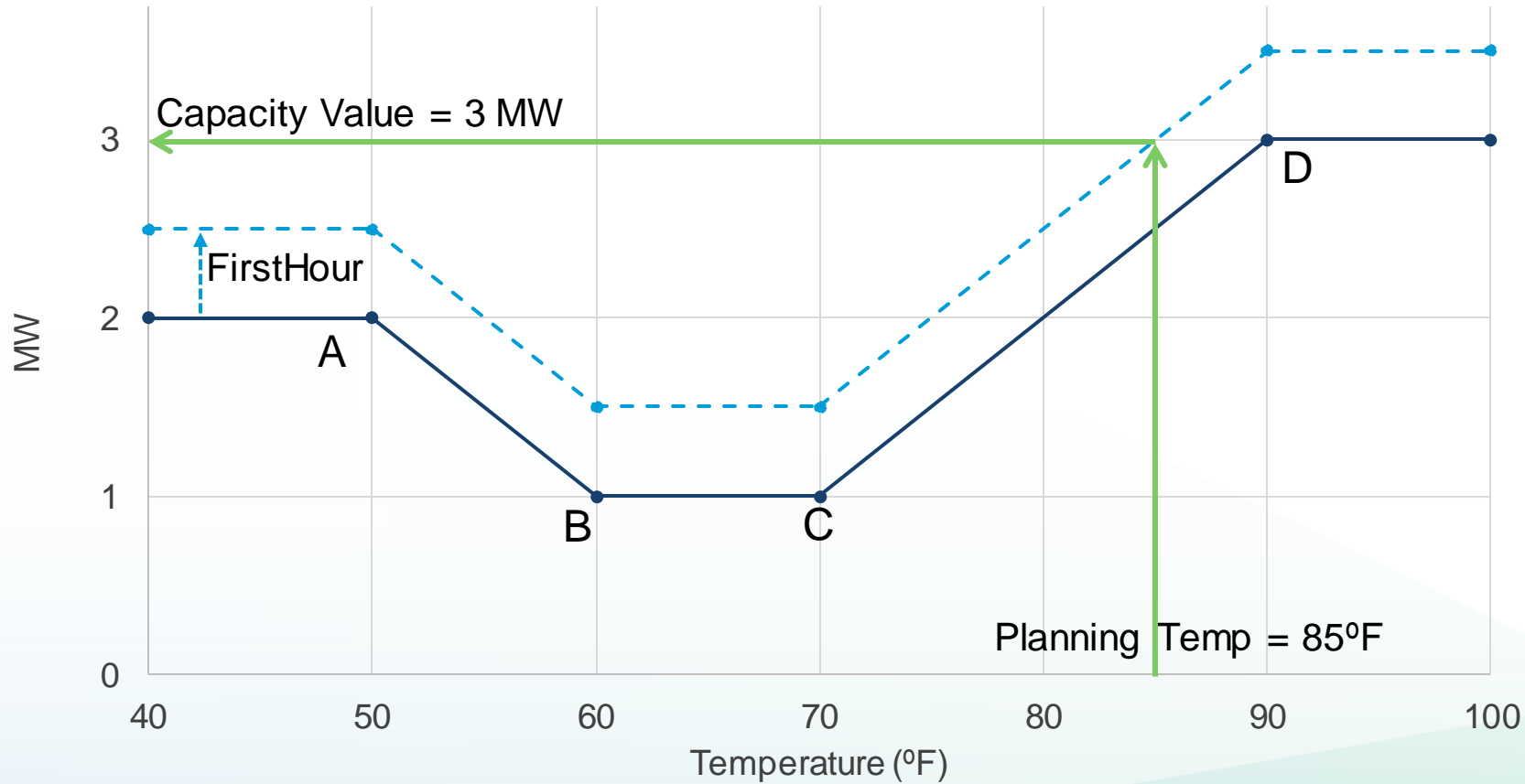
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1) Hourly Capability

For hour x and month/season y



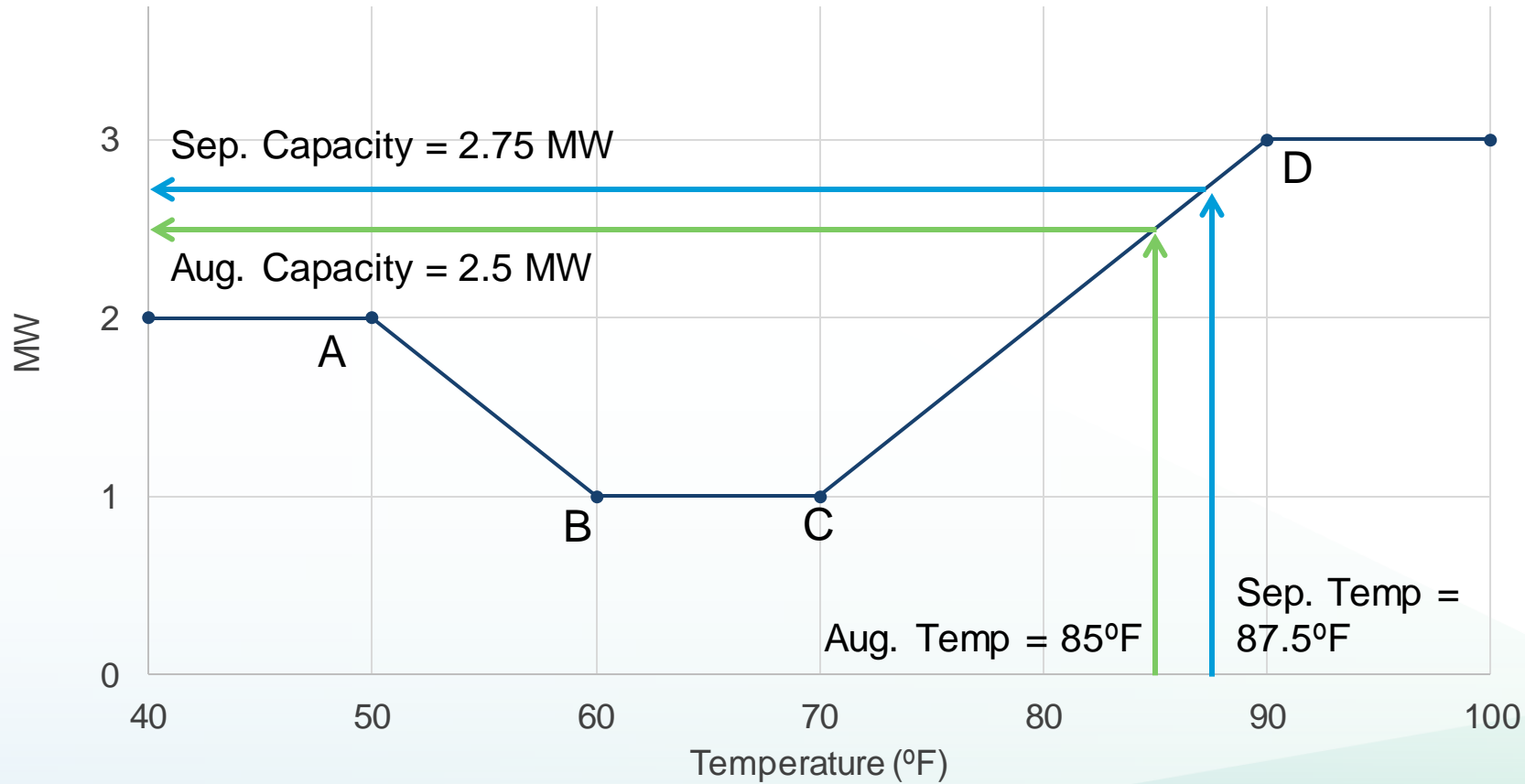
$$A < B \leq C < D$$

Point	Required?	Load Impact Constraint
A	No	A>B
B	Only if A submitted	B=C
C	Only if D submitted	C=B
D	No	D>C



1) Hourly Capability

For hour x and month/season y



$$A < B \leq C < D$$

Point	Required?	Load Impact Constraint
A	No	$A > B$
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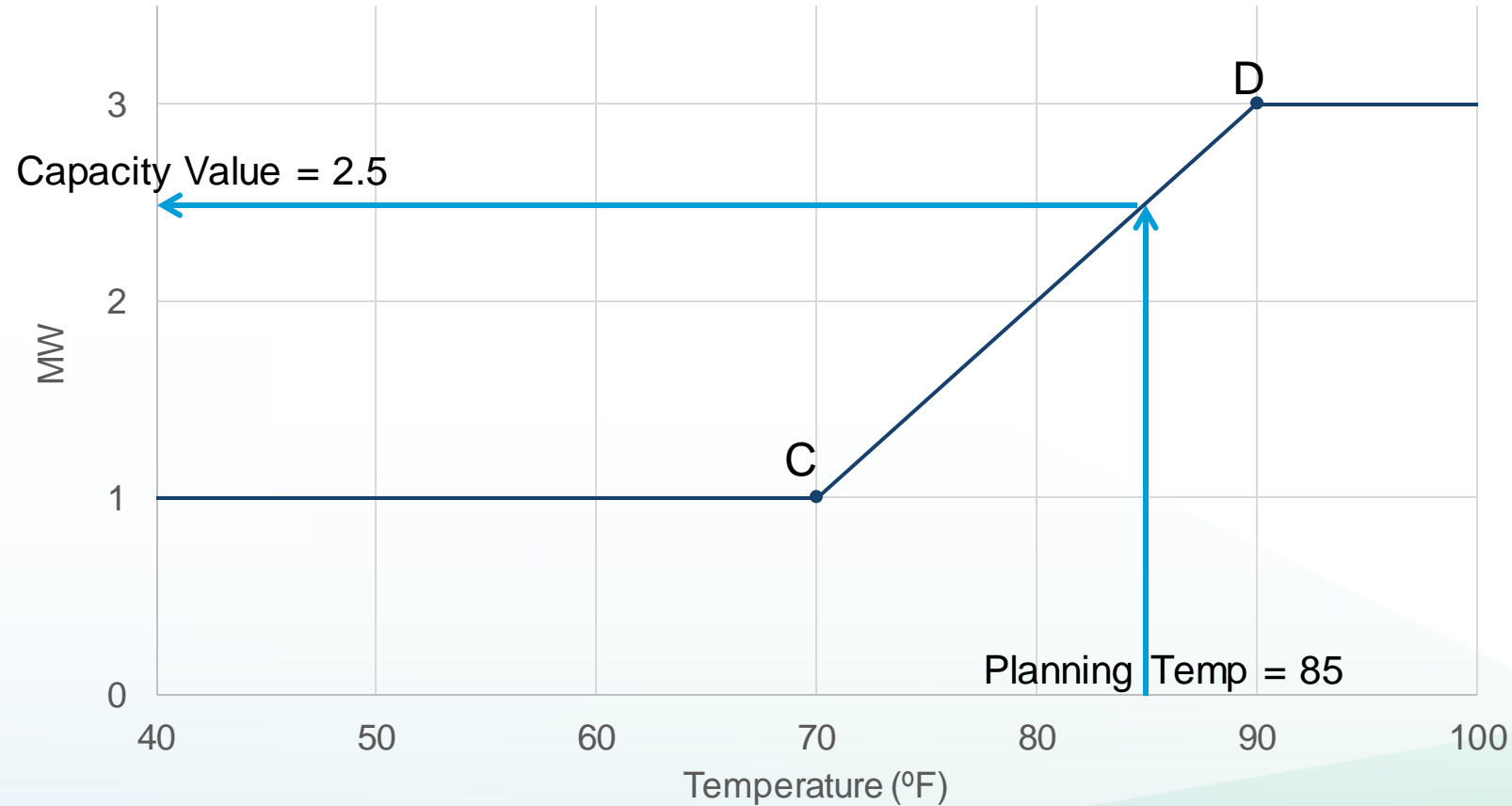
1) Hourly Capability Profile

- Determined by DR provider in standardized format
 - Optional series of change points
- Determined based on knowledge of how ex-post results will be determined and penalties assessed in upcoming year
 - May also consider ex-post performance of previous year
- Requires profile for each hour and month seeking RA value
 - Plus adjacent hours with takeback
 - Profiles can be reused across months or hours



2) Ex-ante Capacity Valuation

Hourly capacity determination from capability profile is unambiguous
CPUC staff adjustments made through capability profile





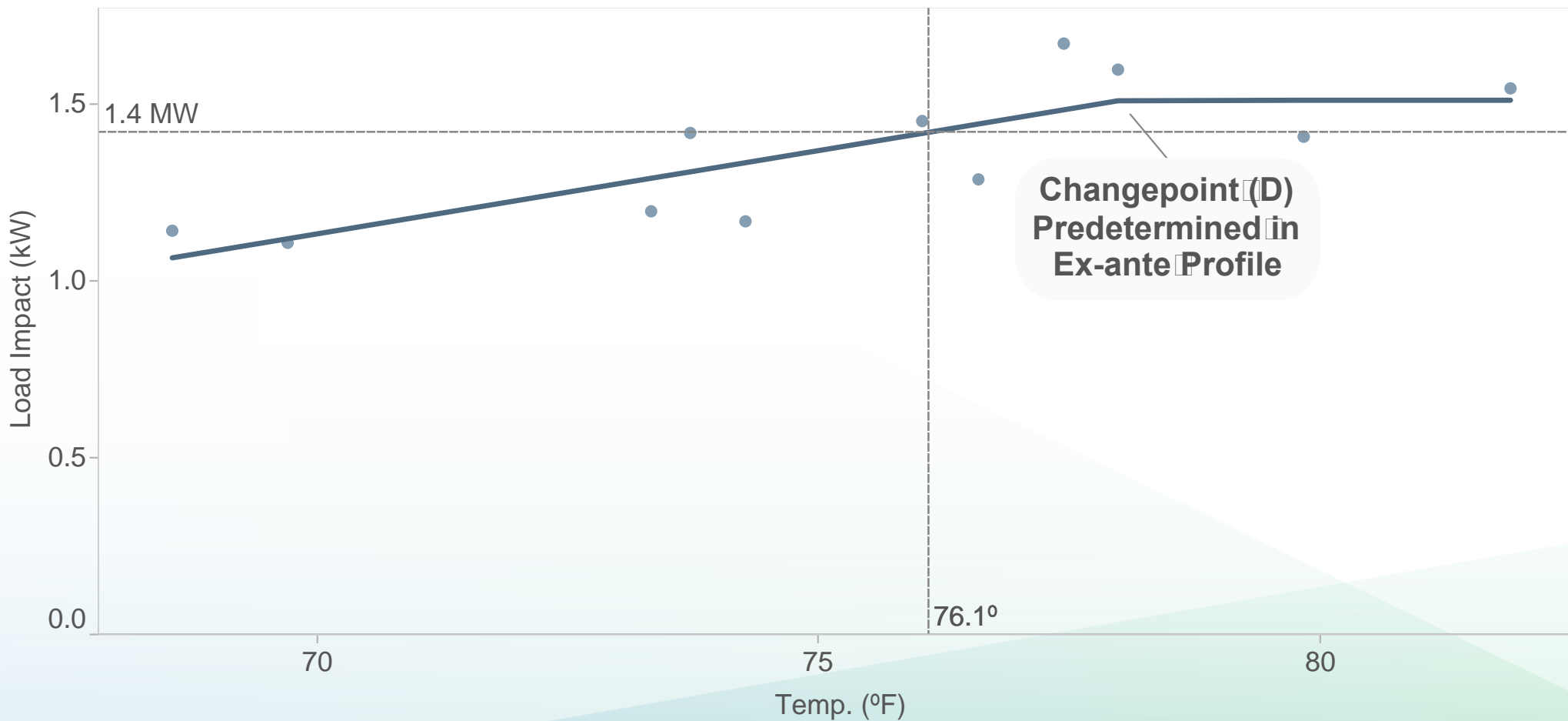
2) Ex-ante Capacity Valuation

- CPUC retains review and oversight of QC values
- CPUC staff may waive prerogative for detailed review and adjustment based on two conditions:
 - DR provider delivered $\geq 90\%$ of committed capacity over hours with RA obligations
 - QC value sought in each hour is $\leq 25\%$ greater than demonstrated capacity in the previous year



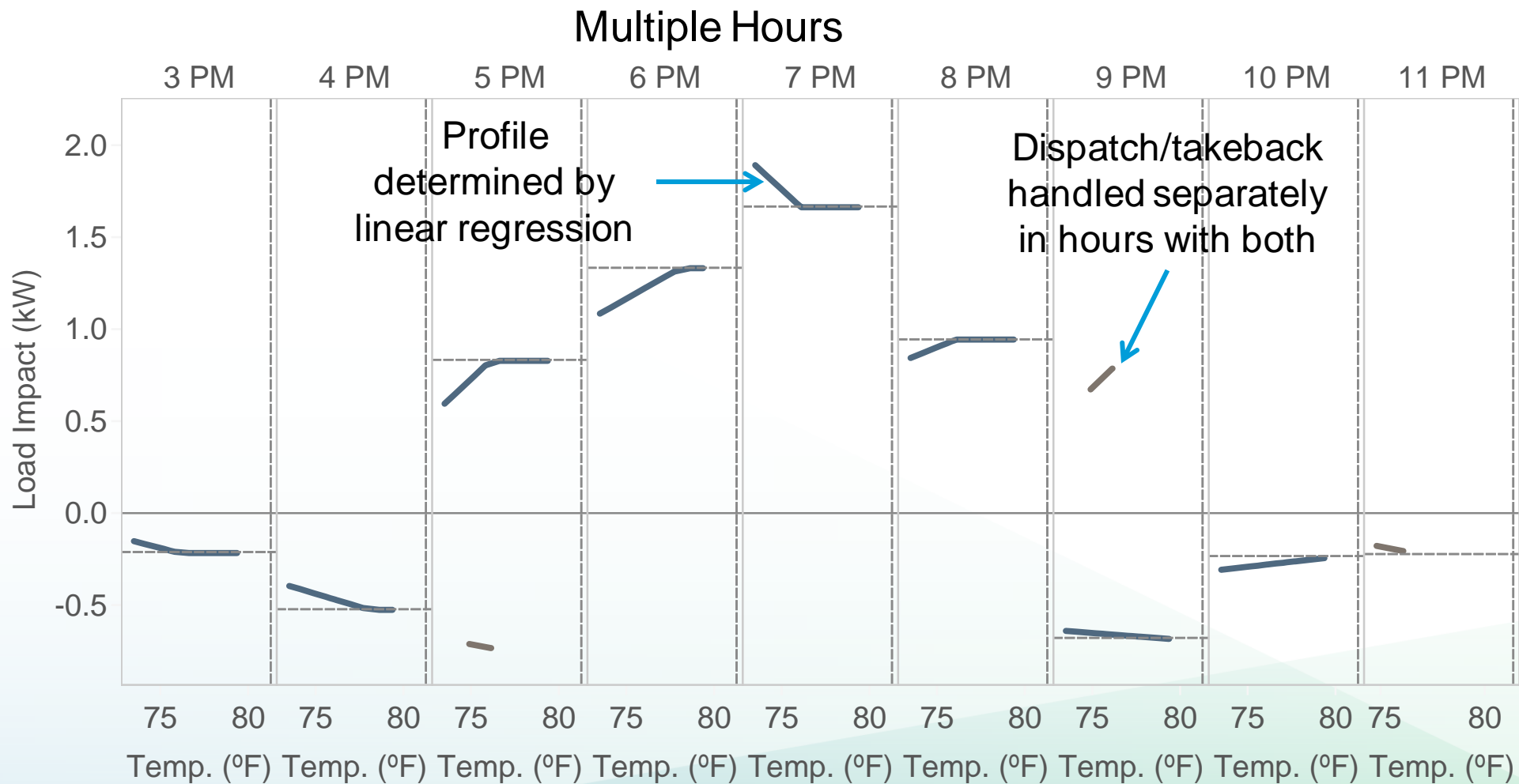
3) Ex-Post Capacity Calculation

Single Hour





3) Ex-Post Capacity Calculation





3) Ex-Post Capacity Calculation

