



# Capacity Capability Senior Task Force (CCSTF) Final Report

February 24, 2022

## Issue Creation

Problem Statement (<https://pjm.com/-/media/committees-groups/task-forces/ccstf/postings/problem-statement.ashx>) and Issue Charge (<https://pjm.com/-/media/committees-groups/task-forces/ccstf/postings/issue-charge.ashx>) brought forward by PJM staff and approved at the March 26, 2020 Markets and Reliability Committee (MRC) [meeting](#).

## Issue Summary

The CCSTF worked to develop the provisions necessary to establish an ELCC method for calculating the capability of all limited duration resources, such as energy storage resources, and all Intermittent Resources, such as wind, solar, hydroelectric power with and without storage reservoirs and other renewable resources. The CCSTF also addressed the capability of hybrids in this effort. The provisions considered included, among other things:

- a. Timing of ELCC analysis for a given delivery year
- b. Allocation of ELCC capability of a resource class to a specific unit
- c. The simulated dispatch of energy storage resources and hybrid resources
- d. Determination of resource classes

The CCSTF had a Phase II and the group started discussion on these topics, but decided to move the work over to the Resource Adequacy Senior Task Force (RASTF).

## Consensus-Based Issue Resolution Process

Number of Meetings and date range covering this topic: The CCSTF met 12 times from April 7, 2020 to August 17, 2020 to discuss this issue.

Non-Binding Poll Results: A few non-binding informational polls were taken to test consensus among the group.

Vote Results: <https://pjm.com/-/media/committees-groups/committees/mrc/2020/20200831-special/20200831-item-01-1-ccstf-voting-results-presentation.ashx>

Final Matrix: <https://pjm.com/-/media/committees-groups/committees/mc/2020/20200917/20200917-item-01-2-ccstf-matrix-post-meeting-20200817.ashx>

### 1. Recommended Proposal: No Transition

<https://pjm.com/-/media/committees-groups/committees/mrc/2020/20200917/20200917-item-04-3-main-motion-solution-package-a-presentation.ashx>



Key characteristics of this package:

1. Specifies the ELCC methodology, including simulated dispatch of Energy Storage Resources, hydro with storage, & other limited duration resources.
2. Provides an annual reassessment of derate factors, performance factors, and ultimately Accredited UCAP values for all applicable resources.
3. Accredits resources based on their share of the total resource adequacy value of the entire class of such resources (i.e., an “Average ELCC” approach, as distinct from a “Marginal ELCC” approach).
4. Accommodates a diversity of resource classes, including new technology types such as 4-hour Energy Storage Resources and hybrids.

## **2. Alternate 1 Proposal: Joint Stakeholder Transition Package**

<https://pjm.com/-/media/committees-groups/committees/mrc/2020/20200917/20200917-item-04-4-ccstf-joint-stakeholders-package-presentation.ashx>

The Joint Stakeholder package consist of a minimum guaranteed floor ELCC rating by class for 10 Delivery Years and also included a transition mechanism.

## **3. Alternate 2 Proposal: Joint Stakeholder Transition Package with Amendment**

This package has the same solutions as the Joint Stakeholder package, but with the following amendments:  
<https://pjm.com/-/media/committees-groups/committees/mrc/2020/20200917/20200917-item-04-4a-alternate-motion-amendment-to-joint-stakeholder-package.ashx>

## **4. Standing Committee Results**

<https://pjm.com/-/media/committees-groups/committees/mrc/2020/20201029/20201029-cao-draft-minutes-mrc-20200917.ashx>

Package A failed in a sector-weighted vote with 1.29 in favor.  
Package D failed in a sector-weighted vote with 2.56 in favor.  
Alternate Motion passed in a sector-weighted vote with 3.98 in favor.

## **Appendix I: Supplemental Documents**

Committee Page: <https://pjm.com/committees-and-groups/task-forces/ccstf>  
Issue Tracking: <https://pjm.com/committees-and-groups/issue-tracking/issue-tracking-details.aspx?Issue=fdd40adf-8d4c-4ecf-bea2-c34793ccf226>



Original FERC Docket: ER21-278-000

Approved FERC Docket: ER21-2043-000 (effective date of August 1, 2021 for 2023/24 DY)

\*The Joint Stakeholder package with Alternate Motion was endorsed by stakeholder and filed with FERC in Docket ER21-278-000. FERC rejected this filing and, as a result, PJM filed Package A which was accepted by FERC.

## Appendix II: PJM Participation

Facilitator: Melissa Pilog  
 Secretary: Jaclynn Lukach  
 Advocate: Andrew Levitt  
 Subject Matter Expert: Patricio Rocha-Garrido  
 Subject Matter Expert: Pat Bruno  
 Subject Matter Expert: Jerry Bell  
 Subject Matter Expert: Jim Dolan  
 Subject Matter Expert: Murty Bhavaraju  
 PJM Legal: Thomas DeVita

## Appendix III: Stakeholder Participation

### WebEx Attendance

Last Name	First Name	Company Name	Sector
Anders	Dave	PJM Interconnection	Not Applicable
Baur	Sean	GlidePath Development LLC	Not Applicable
Bell	Jerry	PJM Interconnection	Not Applicable
Benchek	Jim	First Energy Solutions Corp	Transmission Owner
Bennett	Stephen	PJM Interconnection	Not Applicable
Bernabeu	Emanuel	PJM Interconnection	Not Applicable
Breidenbaugh	Aaron	Martha's Vineyard Female Founders Conference	Not Applicable
Brodbeck	John	EDP Renewables North America LLC	Generation Owner
Bruno	Joshua	PJM Interconnection	Not Applicable
Bryson	Michael	PJM Interconnection, LLC	Not Applicable
Canter	David	Appalachian Power Company (AEP Generation)	Transmission Owner
Carmean	Gregory	Organization of PJM States	Not Applicable
Chang	Sean	Shell Energy North America (US), L.P.	Other Supplier
Chmielewski	Brian	PJM Interconnection	Not Applicable
Cocco	Michael	Old Dominion Electric Cooperative	Electric Distributor
Coyle	Billy	Dominion Virginia Power	Transmission Owner
Curtis	Kenneth	Enverus	Not Applicable
D'Alessandris	Lou	First Energy Solutions, Corp	Transmission Owner
Denby	Brett	Northern Virginia Electric Cooperative (NOVEC)	Electric Distributor
Dossin	Sophia	Invenergy Energy Management, LLC	Generation Owner



Drom	Rick	Other	Not Applicable
Dugan	Chuck	East Kentucky power Cooperative, Inc.	Transmission Owner
Elkins	Rachel	First Energy Solutions Corp	Transmission Owner
Ericson	Christine	State of Illinois	Not Applicable
Fan	Zhenyu	PJM Interconnection	Not Applicable
Feierabend	Richard	Dominion Energy	Electric Distributor
Filomena	Guy	Customized Energy Solutions, Ltd	Not Applicable
Fink	Sari	American Wind Energy Association	Not Applicable
Foladare	Kenneth	Geenex Solar, LLC	Generation Owner
Ford	Adrien	Old Dominion Electric Cooperative	Electric Distributor
Foster-Cronin	Denise	East Kentucky power Cooperative, Inc.	Transmission Owner
Fuess	Christian	PBF Marketing, LLC	Generation Owner
Gates	Terry	Appalachian Power Company (AEP Generation)	Transmission Owner
Gilani	Rehan	ConEdison Energy, Inc	Other Supplier
Good	Megan	Pennsylvania Public Utility Commission	Not Applicable
Granstrand	Luke	Dominion Energy	Electric Distributor
Greening	Michelle	PJM Interconnection	Not Applicable
Guntle	Vince	American PowerNet Management	End-Use Customer
Hastings	David	David Hastings	Not Applicable
Hathcock	Jason		Not Applicable
Hauske	Tom	PJM Interconnection	Not Applicable
Heisey	Brad	Tenaska	Generation Owner
Hoatson	Tom	West Deptford Energy, LLC	Generation Owner
Hohenshilt	Jennifer	Talen Energy Marketing, LLC	Generation Owner
Horning	Lynn	Customized Energy Solutions, Ltd	Not Applicable
Horstmann	John	Dayton Power & Light Company (The)	Transmission Owner
Hyzinski	Tom	GT Power Group	Not Applicable
Janicki	Diane	Boston Energy Trading and Marketing	Other Supplier
Jett	William	Duke Energy Business Services LLC	Transmission Owner
Johnson	Carl	Customized Energy Solutions, Ltd	Not Applicable
Kalle	Ibrahima		Not Applicable
Kauffman	Brian	Enel X North America, Inc Brookfield Renewable Trading and Marketing LP (BSMH)	Other Supplier
Kelly	Stephen		Other Supplier
Kilgallen	Kevin	Avangrid Renewables, LLC	Generation Owner
Kogut	George	New York Power Authority	Other Supplier
Kozhuharov	Dimitar	Delaware Municipal Electric Corporation, Inc.	Electric Distributor
Ladin	Sarah	NYU	Not Applicable
Levitt	Andrew	PJM Interconnection	Not Applicable
Libbos	Robin	Allegheny Power (MonPwr Gen)	Not Applicable
Lopez	Anthony		Not Applicable
Lorii	Regina	Delaware Public Utility Commietions	Not Applicable
Lukach	Jaclynn	PJM Interconnection	Not Applicable
Mabry	David	McNees Wallace & Nurick LLC	Not Applicable
Mariam	Yohannes	Office of the People's Counsel	Not Applicable
McArdle	Brian	Nextera Energy	
McDewell	Christian	Pennsylvania Public Utility Commission	Not Applicable
McGlynn	Paul	PJM Interconnection	Not Applicable



McNeil	Justin	Kentucky	Not Applicable
Midgley	Sharon	Exelon Business Services Company, LLC	Transmission Owner
Moye	Bob	TYR Energy	Not Applicable
Nix	Emma	Gabel & Associates	Not Applicable
Okenfuss-Savion	James	Savion Energy	Not Applicable
Ondayko	Brock	AEP Energy Partners, Inc. (AEP Gen Resources)	Transmission Owner
Patel	Keyer	PJM Interconnection	Not Applicable
Peacey	Denelle	TransAlta Energy Marketing, Inc	Other Supplier
Philips	Marji	LS Power	Not Applicable
Phillips	Darlene	PJM Interconnection	Not Applicable
Pilong	Christopher	PJM Interconnection	Not Applicable
Pilong	Melissa	PJM Interconnection	Not Applicable
Pradhan	Salil	Elk Hill Solar 1, LLC	Not Applicable
Proconiar	Jason	Ohio's Electric Cooperatives	Not Applicable
Pungaliya	Rajat	Pine Gate Renewables	Not Applicable
Rocha-Garrido	Patricio	PJM Interconnection	Not Applicable
Rodriquez	Tomas	OPSI	Not Applicable
Rohrbach	John	Wabash Valley Power Association	Electric Distributor
Rutigliano	Tom	Natural Resources Defense Council	Not Applicable
Sasser	Jonathan	Customized Energy Solutions, Ltd	Not Applicable
Schmitt	David	New Jersey Board of Public Utilities	Not Applicable
Schuyler	Ken	PJM Interconnection	Not Applicable
Sotkiewicz	Paul	E-Cubed Policy Associates	Not Applicable
Stern	Alex	Public Service Electric & Gas Company	Transmission Owner
Strella	Lauren	PJM Interconnection	Not Applicable
Svenson	Heather	Public Service Electric & Gas	Transmission Owner
Swalwell	Brad	Tangent Energy Marketing, Inc	Other Supplier
Sweeney	Rory	GT power Group	Not Applicable
Walker	Tori	Pine Gate Renewables	Not Applicable
Watson	Brian	Appalachian Power Company (AEP Generation)	Transmission Owner
Whitehead	Jeff	GT Power Group	Not Applicable
Wilson	James		Not Applicable
Wiserky	Megan	Madison Gas & Electric Company	Other Supplier
Yoder	Michael	RTO Insider	Not Applicable