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OCTOBER 14, 2026 | S. BURLINGTON, VT

ISO New England Transitions to New Framework to Interconnect Resources

Annual REV Conference

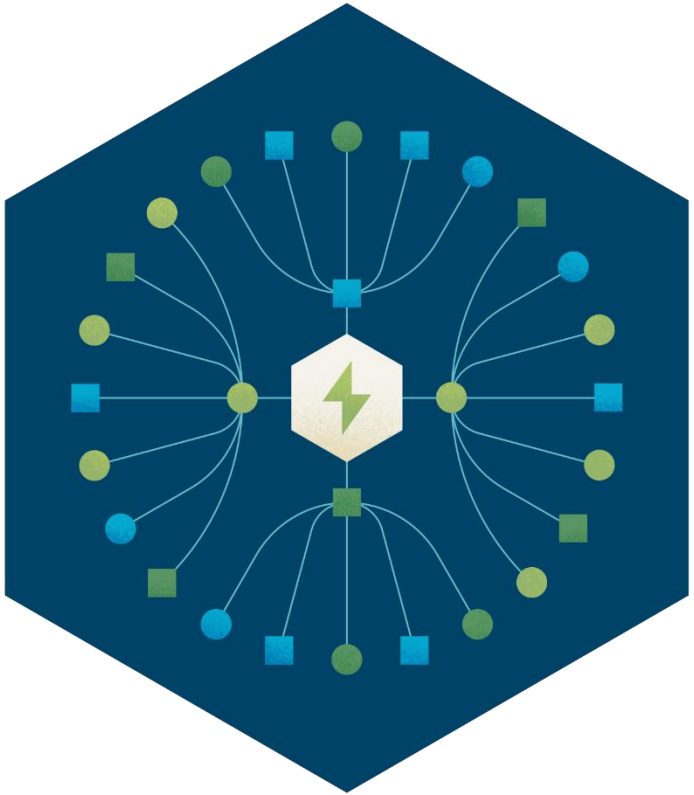
Sarah Adams, AICP

SENIOR STATE POLICY ADVISOR, EXTERNAL AFFAIRS



New England's Interconnection Reforms

- ✓ Delivered a record-scale transitional study on schedule
- ✓ Produced actionable information on upgrade needs, costs, and timing
- ✓ Created a clear bridge from the serial queue to the regular cluster process
- ✓ Turned first-cycle experience into concrete improvements for future studies



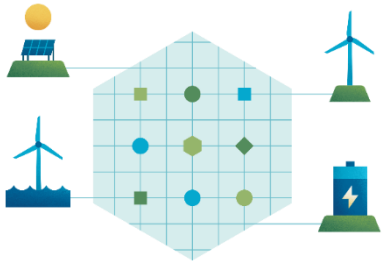
ISO-NE's Transitional Cluster Studied Record Capacity

The TCS was ISO-NE's bridge from the former, serial queue to the new framework

WHY REFORM?

Order 2023

FERC required a fundamental shift to a cluster-based, "first-ready, first-served" interconnection process



BATTERY-HEAVY

18 of 23

projects studied were batteries

~4,800 MW of deliverable capacity was evaluated across all resources

RECORD PACE

~8 months

to interim results

the most ≥20 MW deliverable capacity ISO-NE has ever considered in one study

TCS Final Report – identifying required upgrades, with cost & construction timeline estimates – was issued on Aug. 6

Order 2023 Changed the Operating Model

BEFORE

Serial queue

- Large queues
- Speculative projects
- Frequent withdrawals
- Repeated restudies

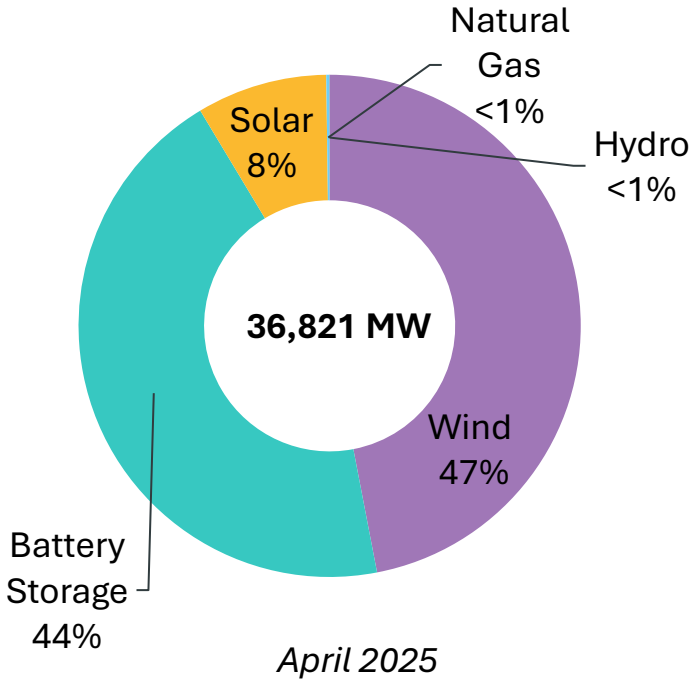
ORDER 2023

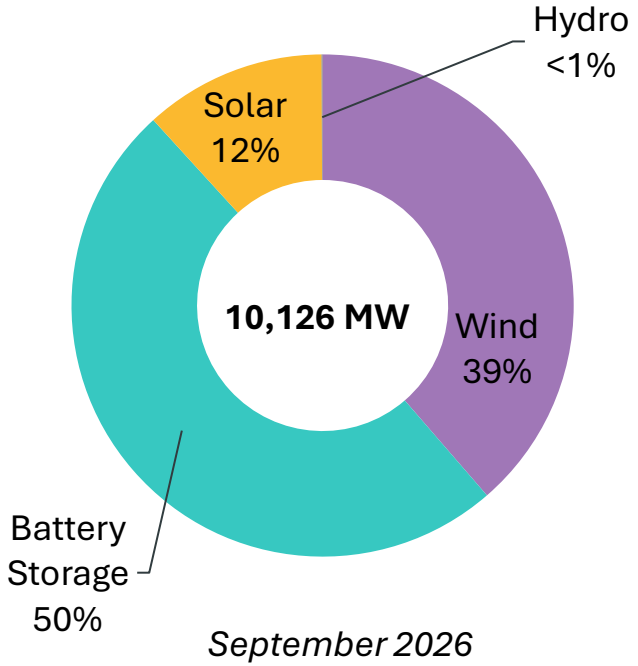
Cluster study

- Commercial readiness requirements
- Site control requirements
- Withdrawal penalties
- First-ready, first-served principles

Today's Queue Reflects Interconnection Reforms

Resource mix has stayed the same, but number of applications has dropped



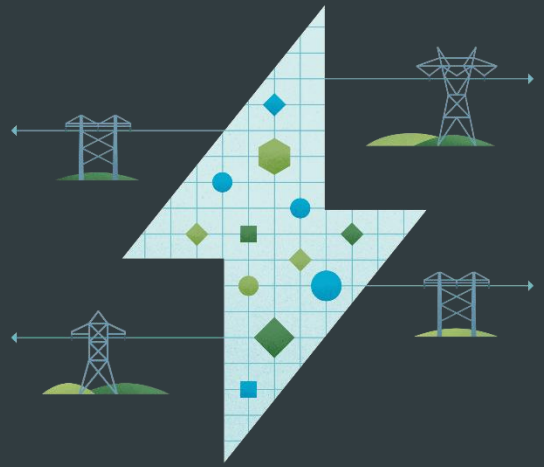


Source: ISO Generator Interconnection Queue, FERC Jurisdictional Proposals; Nameplate Capacity Ratings.

Multiple Factors Shape TCS Upgrade Results

Whether a project contributes to a violation – and therefore an upgrade – depends on:

- Project size and electrical location
- Number, proximity, and size of projects studied together
- Short-circuit, stability, and electromagnetic-transient performance



Cost comparisons with earlier projects require caution because the study populations and scopes are not directly comparable

New Heatmap Gives Developers an Earlier Grid Screen

Shows estimated capacity near grid connection points

Blue or green = more
Orange or red = less

A first screen for location and electrical feasibility

Not a full study, cost estimate, siting analysis, or reservation



Released well ahead of the Order 2023 deadline

A companion queue map adds location and resource-type context for active requests

Source: ISO Newswire — Interactive heatmap (Oct. 2, 2026)

Cluster Implementation Is Iterative

NO REGION HAS SOLVED THIS COMPLETELY

PJM	NYISO	MISO	CAISO
Still navigating queue reform impacts	Managed its own transition cluster process	Continues refining cluster study implementation	Continues debating readiness and upgrade allocation

Across U.S. ISOs and RTOs, the work is to preserve readiness discipline while improving predictability, transparency, and execution

Timeline & Next Steps

The Cluster Request Window will be followed by a 60-day Customer Engagement Window, which will include a Cluster Scoping Meeting; following this window, the ISO will begin study work in early 2027



Jun 7
ISO issued the interim TCS Report

Jul 7
Deadline for Interconnection Customers (ICs) to provide written comments to the ISO on the interim TCS Report

Aug 6
ISO issued the final TCS Report

Aug 21
ISO tendered draft Interconnection Agreements (IAs)

Oct 5
Initial Cluster Request Window for first full study opened for 45 calendar days (Nov. 19)

Oct 20
ICs must request to execute IA, file IA unexecuted, or enter dispute resolution

After Oct 20
ISO issues IAs for execution to ICs

Oct 30
ICs that requested to file IA unexecuted on Oct 20 provide IA deposit, or request is deemed withdrawn

After Nov 4
ICs that requested to execute IA on Oct 20 provide IA deposit, or request is deemed withdrawn

Q4 2026: ISO will hold a lessons-learned meeting to identify process improvements for future Clusters and examine study methodology

Closing Thoughts

DELIVER
& follow through

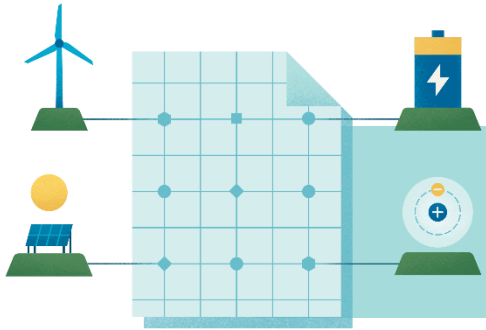
Record-scale TCS delivered on a demanding timeline
→ Finish IA negotiations & remaining milestones

Launch & LEARN

Launch the regular cluster, engage customers, and use the Q4 review to improve the process

IMPROVE
visibility sooner

Release the heatmap ahead of schedule to support earlier location screening



Deliver the transition.
Learn from the first cycle.
Improve the next one.

Source: ISO New England – Further TCS Next Steps memo

Questions





Lessons Learned from the Cluster Study Process

October 14th, 2026 REV Conference
South Burlington, VT
Lucas Looman, Transmission Planning

How does a generator interconnect in VT?

- Dependent on various factors
  - Size thresholds (MW)
  - Point of Interconnection (transmission, subtransmission, distribution)
- Agnostic to fuel type
- Must follow both ISO-NE and VT processes





Size Thresholds

ISO-NE process requirements increase as project size increases

Below 1 MW

State and DU process

No ISO-NE requirement for behind-the-meter projects

1 – 4.999 MW

State jurisdictional

ISO-NE notification Level 0 or Level 3 Proposed Plan Application

5 – 19.999 MW

Small Generation Interconnection Process

ISO-NE Schedule 23

20 MW and above

Large Generation Interconnection Process

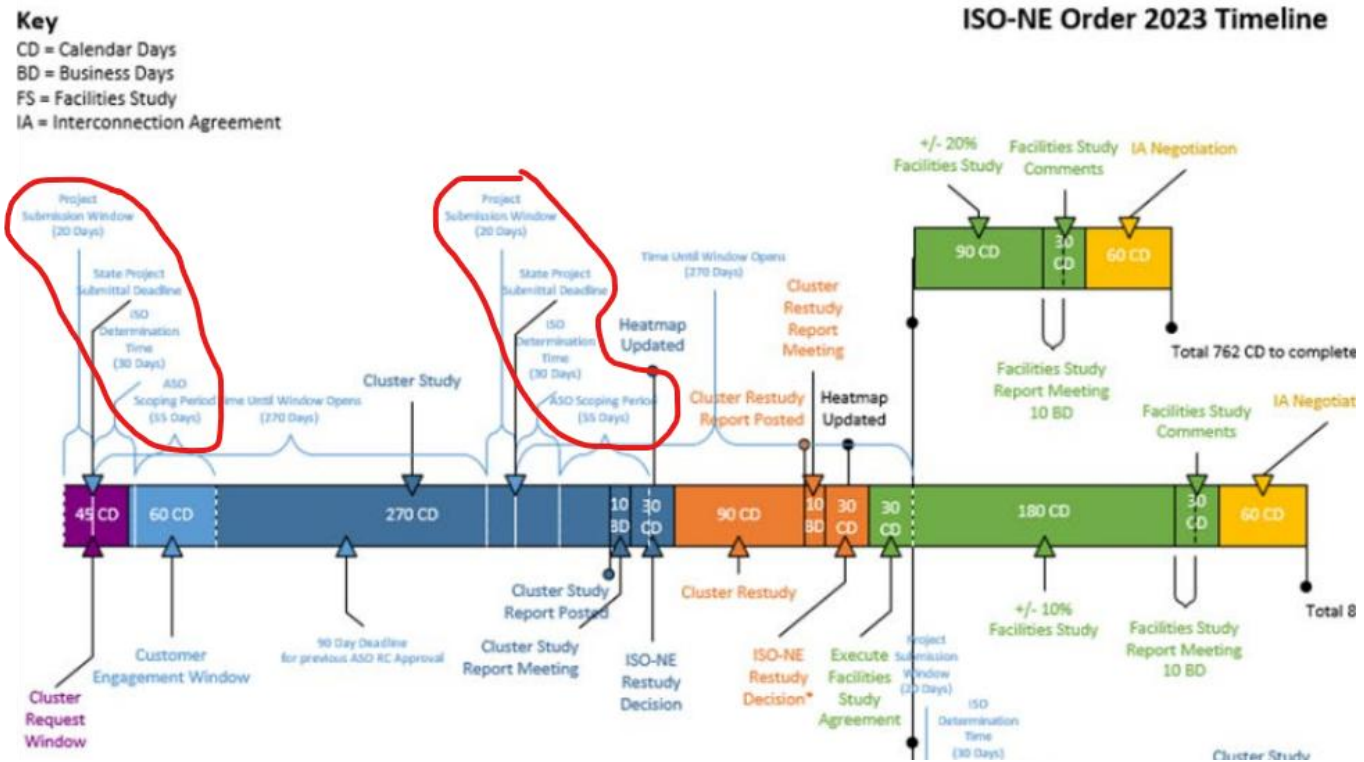
ISO-NE Schedule 22

State-jurisdictional projects from 1 MW to 4.999 MW

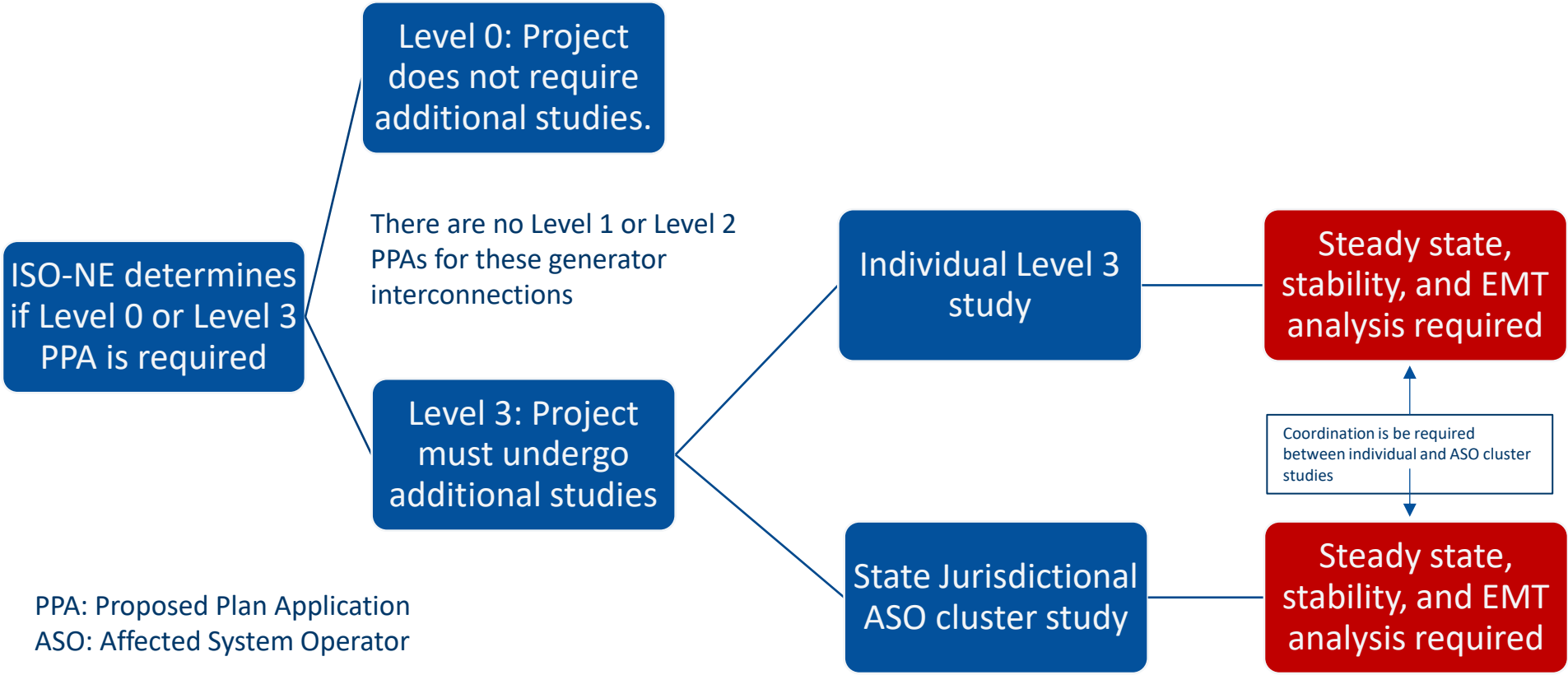
How ISO-NE determines whether Level Three analysis is required



How the State Jurisdictional Projects fit into the ISO-NE Cluster Study Process



Level 0 vs Level 3 Proposed Plan Application Process



PPA: Proposed Plan Application
ASO: Affected System Operator

Change to how Level 3 Determination is made

Common technical steps

1. Map the project to the nearest 115+ kV station
2. Study a three-phase fault at that station
3. Define the electrically close area as described in PP5-6, Attachment I

BEFORE OCTOBER 5, 2026

All projects counted

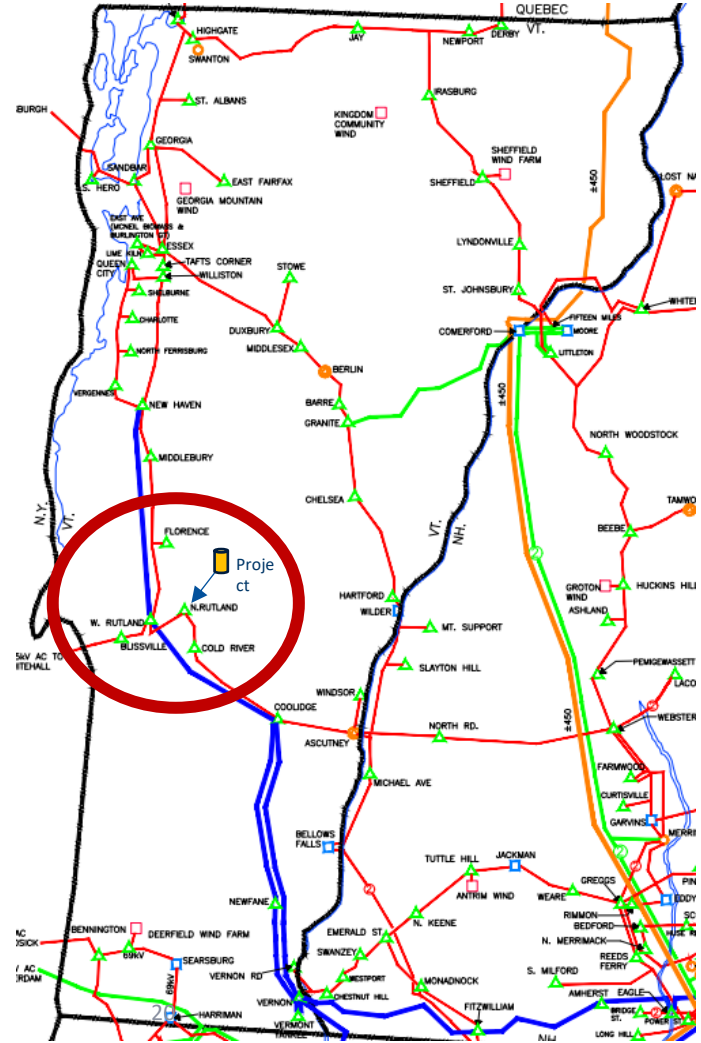
Existing and proposed 1–5 MW projects inside the electrically close area contributed to the threshold.

BEGINNING OCTOBER 5, 2026

Window projects count

Only proposed 1–5 MW projects submitted during the state-jurisdictional project window contribute to the threshold. ***Existing projects do not count.***

If the total reaches the 20 MW threshold, ISO-NE requires Level 3 analysis.



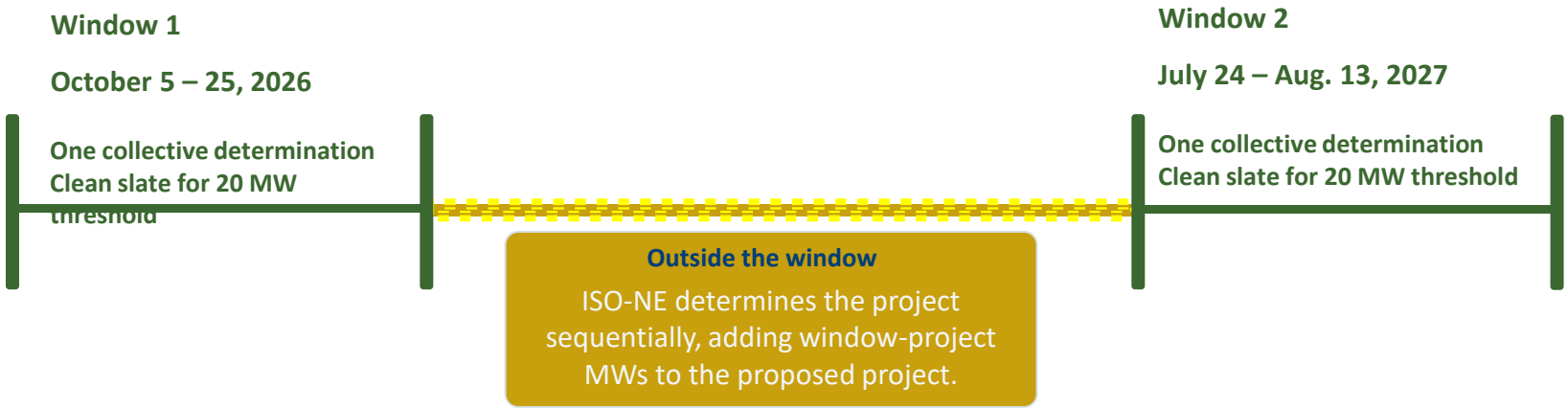
Example of Determination Process

- Proposed Project: 4.99 MW Battery
- POI: Pittsford 12.5kV distribution
- Nearest 115 kV bus: North Rutland substation
- Fault simulated on North Rutland 115 kV bus
- Area of low voltage contains North Rutland, Florence, Cold River, West Rutland, Blissville substations
- Other proposed projects submitted in window: 3.5 MW solar @ Cold River, 4.99 MW battery @ Blissville, 2.2 MW solar @ North Rutland
- Total in “electrically close” area: 15.68 MW
- Determination: Level 0 PPA

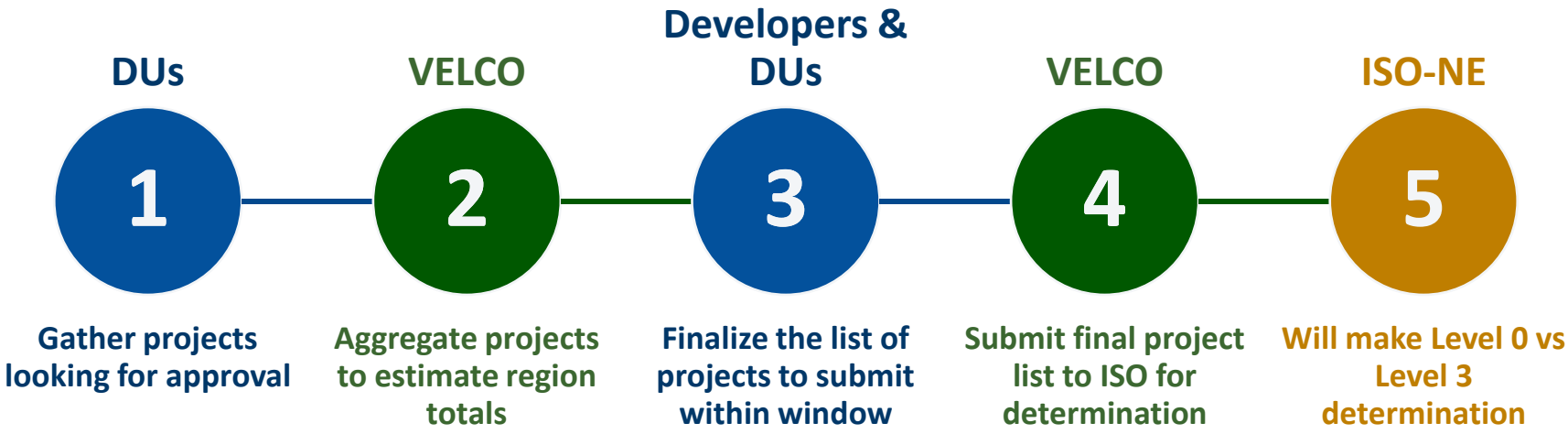
VELCO

Timing of Project Submittal is Important

Projects inside a submission window are assessed together. Project outside the window are assessed sequentially.



During the Project Submission Window



FAQ

QUESTION

Could each “electrically close” region have 19.9 MWs of projects submitted every year and never be studied?

Yes

QUESTION

How do we ensure that reliability is maintained if no Level 3 studies are done?

- ISO-NE Vermont Needs Assessment
- VELCO’s Long-Range Transmission Plan

QUESTION

What is the current state of the project submission window?

- 22 projects sent to VELCO
- Possibility of Level 3 determinations
- Developers & DUs may decide to limit projects (between steps 2 and 3)

Key Takeaways

Three practical implications for developers, distribution utilities and planners

01

Use the window

Projects submitted in the window have a lower likelihood of requiring Level 3 studies.

02

Look beyond the POI

The determination reflects the electrically close area, not only the interconnection point.

03

Coordinate early and often

Developer, DU, VELCO, and ISO-NE coordination shapes a reliable submission.

Lucas Looman

Transmission Planning Engineer

llooman@velco.com





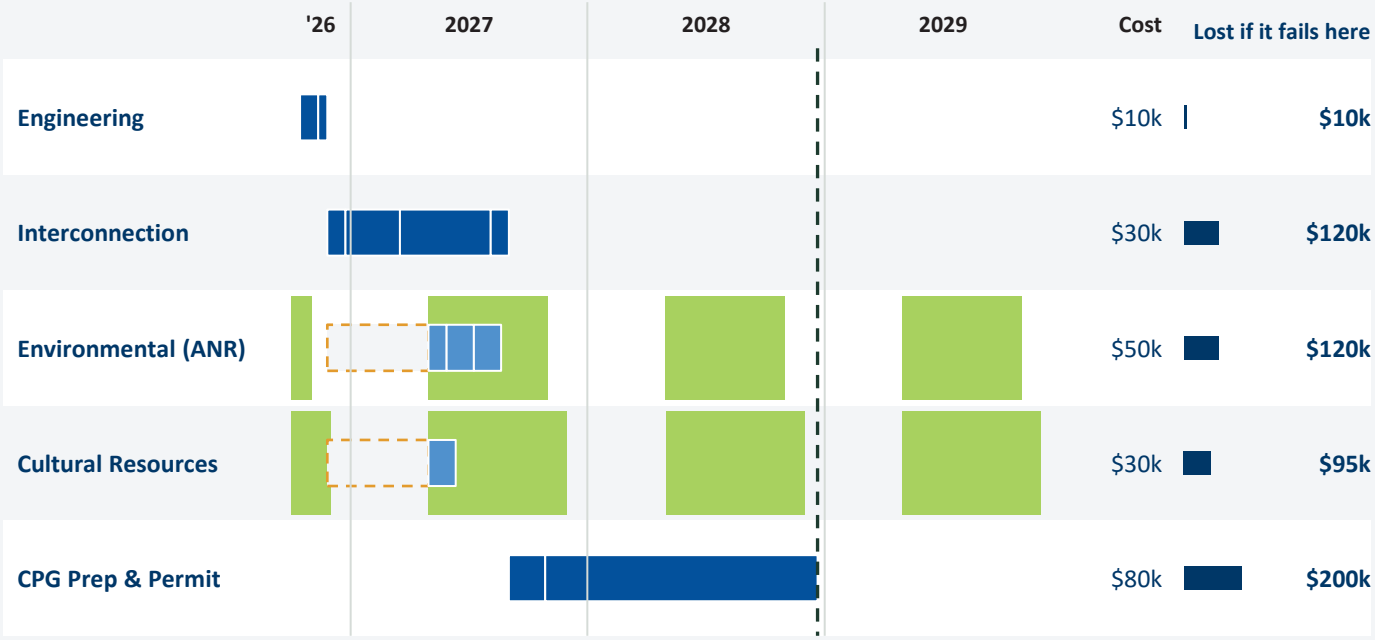
MHG SOLAR

CREATIVE SOLUTIONS FOR A BETTER ENERGY FUTURE

FOUNDERS, THOMAS HAND & PETE GIESE

One of Vermont's leading renewable energy developers with more than 70MWdc of operational / permitted projects across ~30 Vermont sites.

Pre-2026 development timelines - Without ISO studies



Lost if it fails here: every study already started by the end of that stage, at its full cost.

Study | Seasonal field study | Allowed field season | Waiting for season

$200k

Total study cost

Engineering, Interconnection, field studies and CPG

Dec 2028

CPG permit in hand

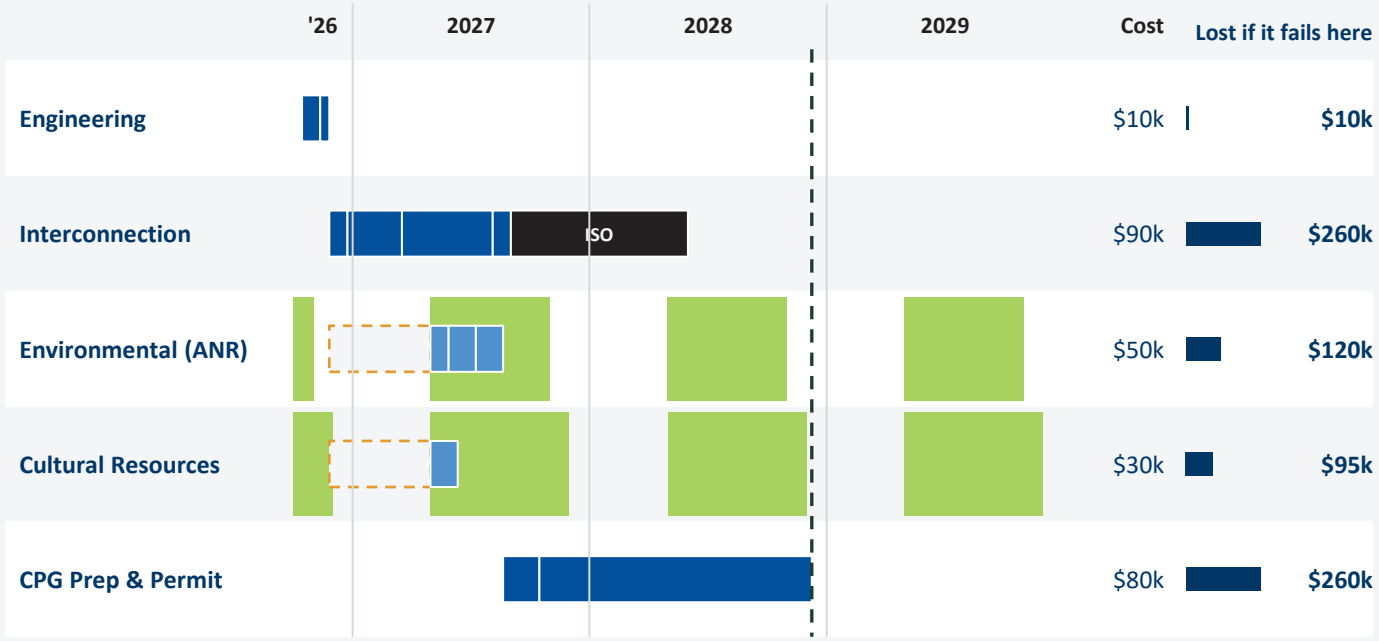
2.2 years after an Oct 2026 start

$120k

If Interconnection fails

Known Sep 2027; includes $80k of field studies already paid

Today with ISO studies – Parallel process to maintain timelines



$260k

Total study cost

Includes the $60k ISO study

Dec 2028

CPG permit in hand

2.1 years after an Oct 2026 start

$260k

If Interconnection fails

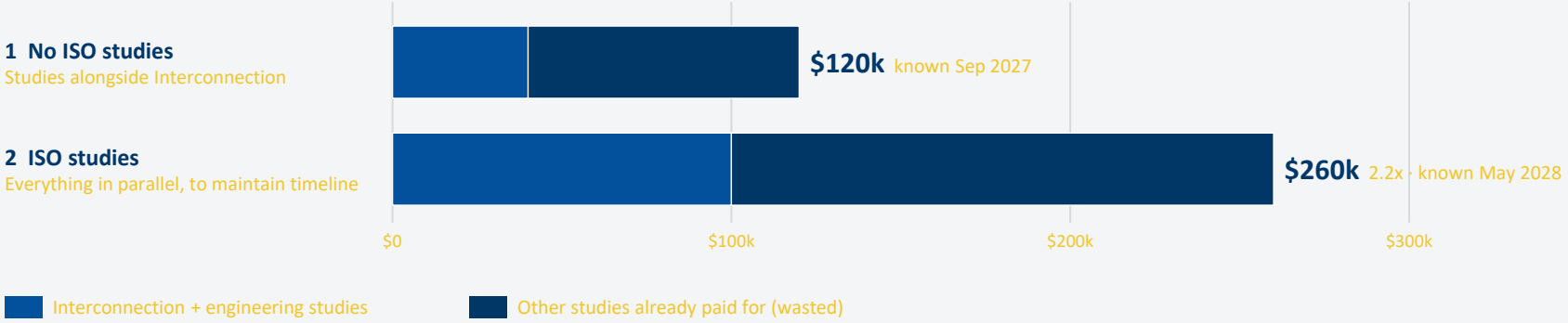
Includes $160k of other studies already paid for

Lost if it fails here: every study already started by the end of that stage, at its full cost.

Study | ISO study | Seasonal field study | Allowed field season | Waiting for season

Capital at risk more than doubles to maintain schedule

Lost if Interconnection fails



	Pre 2026:	2026 Onward:
Total study cost	$200k	$260k
Capital committed before interconnection outcome is known	**$120k**	**$260k**

THANK YOU REV2026 SPONSORS













































