Large Load CIFP
NRDC Solution Components

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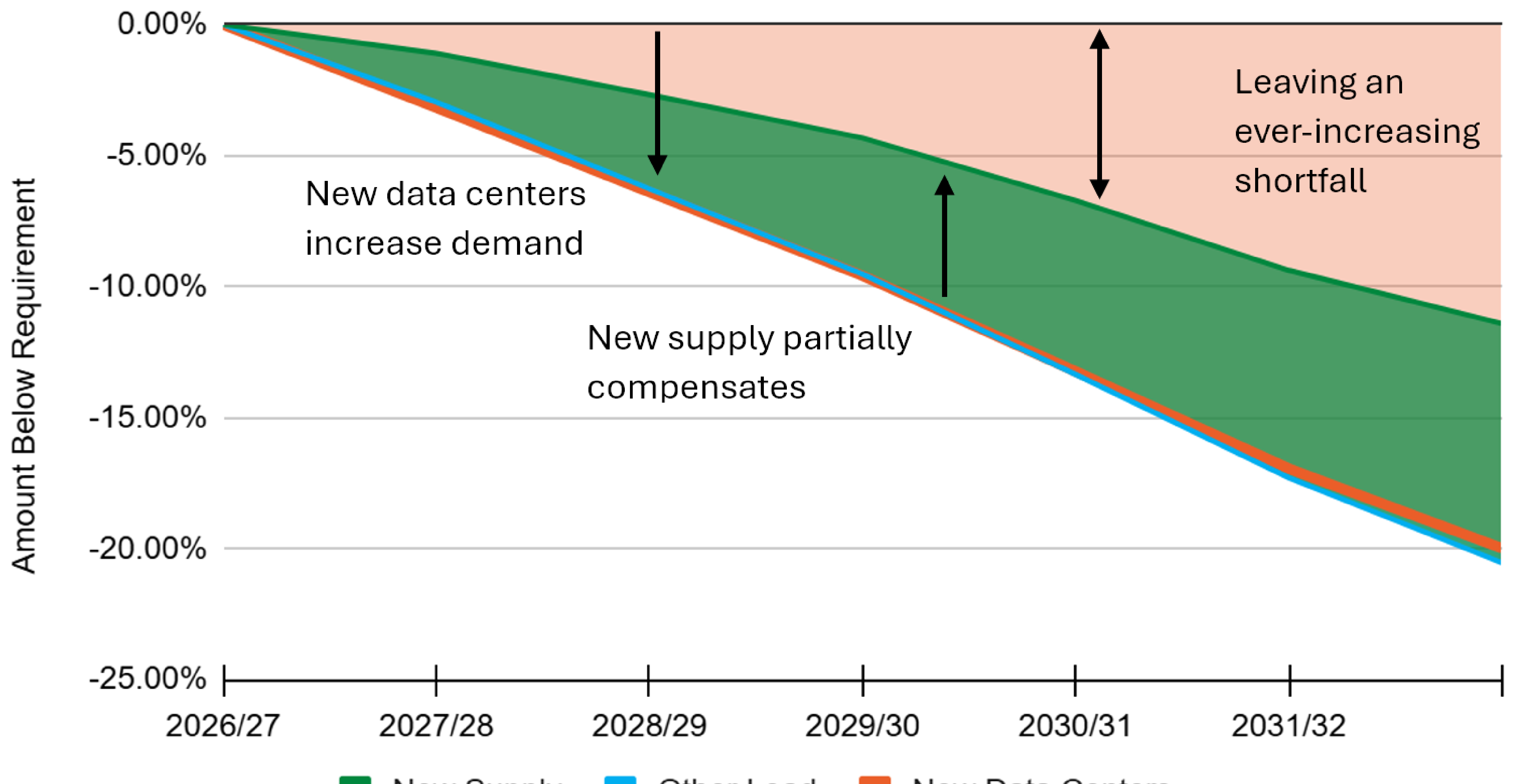
The Resource Adequacy picture is set through the 2030s

The response to high RPM prices will not help until the 2030s.

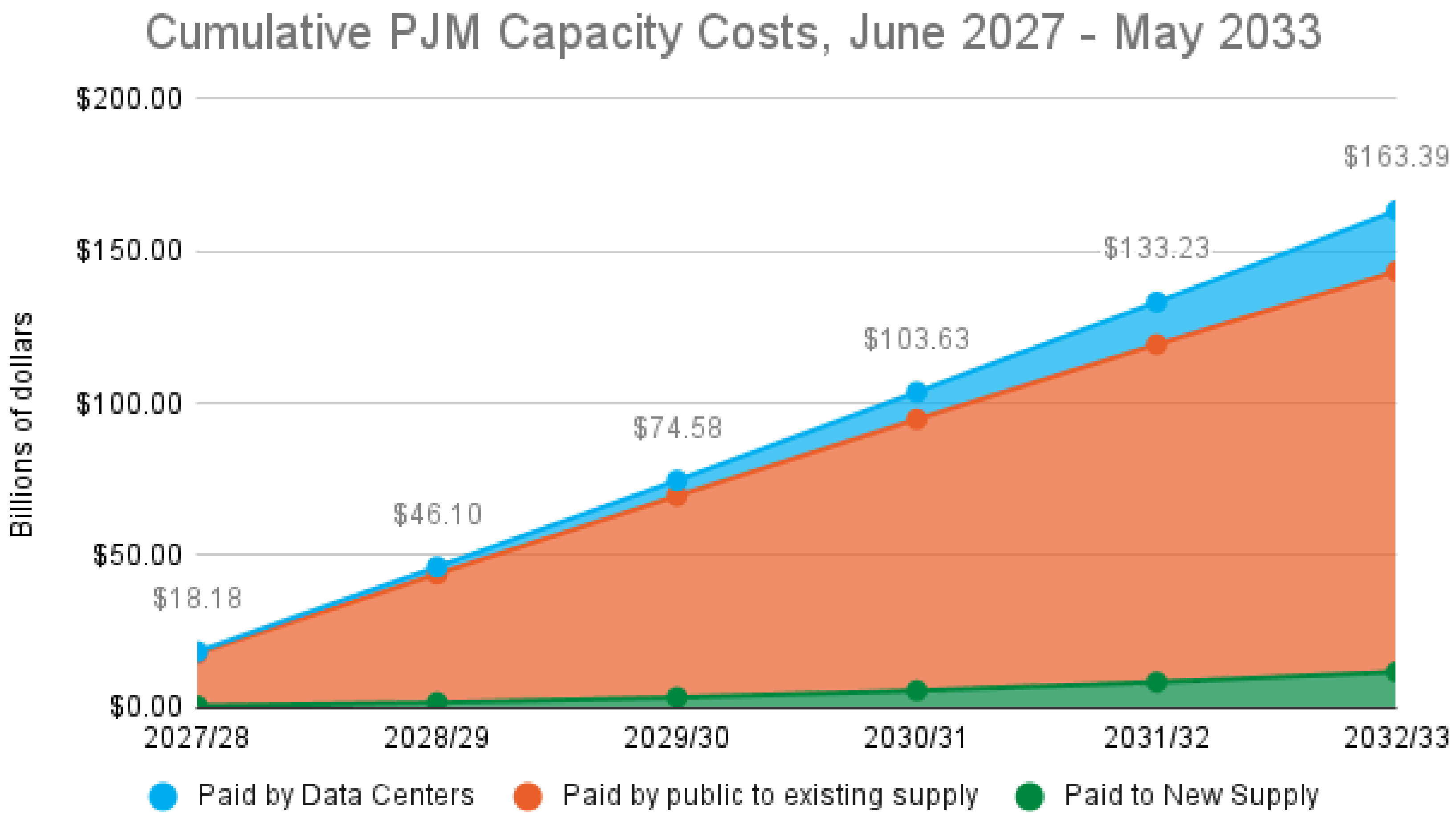
- Due to queues and construction time, few projects conceived after 2020 will enter service before 2030
- Forward RPM auctions mean that price relief will not occur until the 2033/34 delivery year at the earliest.
    - Because almost no generation offers as Planned, there is a 3-4 year lag between resources entering service and capacity prices responding.
- A new project that was ready to go the day after the 2025/26 BRA results will not realistically lower capacity prices until 2033/34.
- RRI and any new fast track do little to help reliability before the 2030s or lower prices before 2033.

PJM’s Reliability Gap



The Region faces $163 billion in capacity costs through 2033

Due to the nine-year delay in any market response, almost all this will be deadweight payments to incumbent generators.



PJM's current proposal

We believe PJM's current proposal does not address several key issues.

- Does not protect ratepayers from excessive deadweight costs.
- Does not fix the reliability problem, but makes it much more expensive and spreads it out to all load.
    - Eliminating NCBL will increase scarcity pricing intervals. Scarcity pricing costs approximately $600,000/minute.
- Provides large loads with no clear path to firm service.
- Puts project risk on the general public.

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NRDC Proposal: Big Picture

New large loads receive interruptible service until they add capacity to the system

Clear BYO rules that provide every option to add capacity f.b.o new loads

Maximize use of energy-only resources to avoid curtailments

Improve treatment of planned generation

Solution components: BYOC

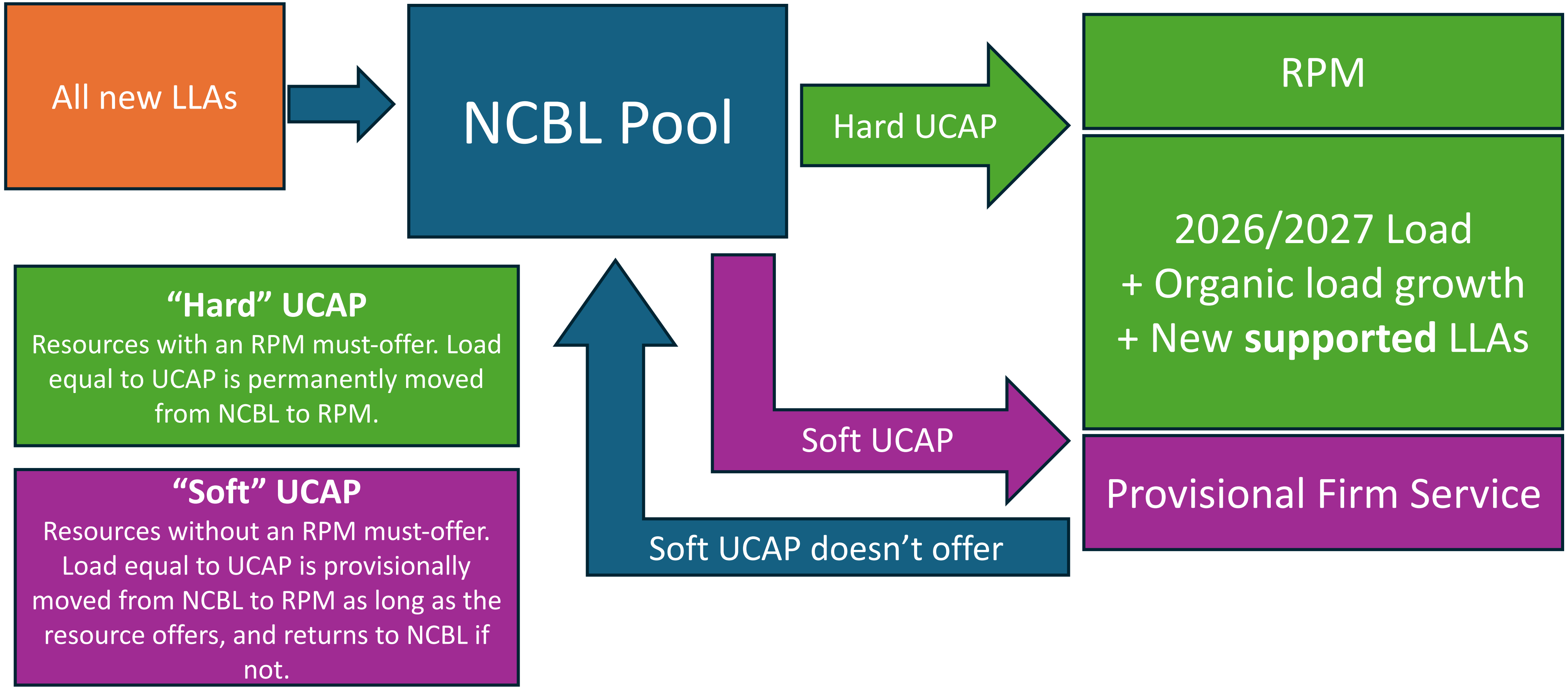
- PJM will provide firm service to all load in the 2026/27 BRA plus future organic load growth, but not LLAs beyond those included in 2026/27. (Option matrix H2, H3, H9)
- All LLAs in excess of 2026/27 level go into "NCBL Pool" for their LDA. This is conceptually the penalty box for LLs that have not yet BYO'ed. To respect state jurisdiction, PJM will treat it as an undifferentiated pool of UCAP. (H5)
  - NCBL Pool UCAP total = sum of UCAP associated with each LLA
- Each LDA is only provided firm service up to the amount cleared in RPM (H6, H10, H13, H18)

Solution components: Data Center Path to Firm Service

Any source of UCAP beyond what is needed to serve organic load can be contracted to provide firm service to data centers.

- Permanently whenever deliverable new supply with an RPM must-offer obligation (generation) offers into RPM and designates itself as serving a Large Load to which it is deliverable. This is the main mechanism to recognize BYOC. (H14, H15, H18)
- Temporarily whenever deliverable new supply without a must-offer (DR, imports) offers and designates as above. This lasts as long as the resource continues to offer.
- For one year by purchasing capacity in the 3rd IA or through bilaterals after the 3rd IA (H18, H22, H28)
- Permanently when the LDA's LDA's load forecast decreases, at the state's option. This provides an opening for load-shaping efforts to free up UCAP for LLAs.
- Potentially through QTRs/ICTRs. Needs further development.
- All accounting done in UCAP.

NRDC BYOC proposal visualization



State Role in BYOC Implementation

- States map NCBL to retail customers
- Presumption/hope is that states respect the allocation of new UCAP to particular large loads, but doing that explicitly in the PJM tariff seems to intrude on state jurisdiction
  - States may require certain loads take service under retail tariffs that include participation in PJM DR or PRD.
  - States may require certain loads take service under retail tariffs that require curtailment prior to PJM curtailing NCBL. This requires no action by PJM, since the curtailments will appear operationally in real-time.
- PJM curtailment is always in the form of a directive to shed a quantity of MW. Which customers are shed remains a retail decision, but PJM will provide a clear suggested approach. (Like PLCs)

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NCBL Operations

NCBL curtailment is tricky. Too late and real-time prices harm consumers; too early interferes with air quality and backup generation permitting by forcing data centers to run on environmentally limited backup generation. Initial ideas:

- PJM may curtail NCBL concurrent with any action that issues EEA2, or during EEA1 when all actions short of EEA2 have been exhausted. This is consistent with backup generator permitting. (H33)
- PJM may issue an "NCBL Warning" and treat NCBL as synch reserves to avoid entering scarcity. (H39)
- PJM shall curtail NCBL prior to and concurrent with entering scarcity pricing. This at least sets some limit on NCBL's effect on real time prices. (H33, H39)
- NCBL considered in day ahead market if DA would be short. (H38)
- If needed for price formation, treat NCBL as PRD offering at

Solution Components: Flexibility and Energy-Only resources

Provide incentives for data center flexibility through existing DR mechanisms and allow them to manage risk by contracting with energy-only resources

- Large loads can gain firm service to the extent they participate, or recruit others to participate, in PJM DR or PRD (H15, H17)
- For single loads this only provides operational advantage if NCBL is curtailed before DR, which we'd like to avoid.
- Owners can contract with any generation without a capacity obligation to reduce their DR curtailment risk. (H45) This includes resources that have obtained provisional interconnection service (H46), and resources that come into service between the BRA and the delivery year.
- States have places to plug-in retail DR.

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Planned Resources

- Data is sparse, but it appears very few planned generators offer into RPM. We estimate out of 46,500 MW eligible to offer in the 26/27 BRA, 215 MW offered.
- If so, RPM prices will always reflect demand three years in advance of supply, resulting in a false ~6 GW tightening
- Bring back the holdback:
  - PJM estimates UCAP MW of CIR-holding generation expected to come into service between the BRA and 3^{rd} IA, withholds that amount from the BRA and purchases it in the 3^{rd} IA. (H16)
- Another option is to reduce the risk for planned resources that clear in the BRA, but unclear how this could be done (H48)

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