

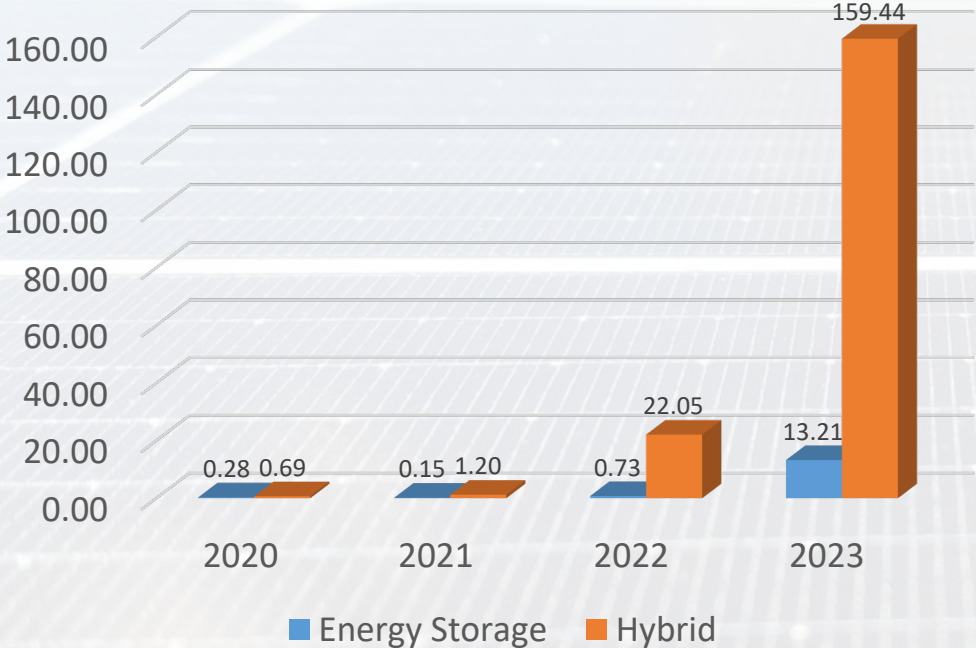
UL 1741 CRD Multimode

Tony Anchante, Sr. Engineering Technician

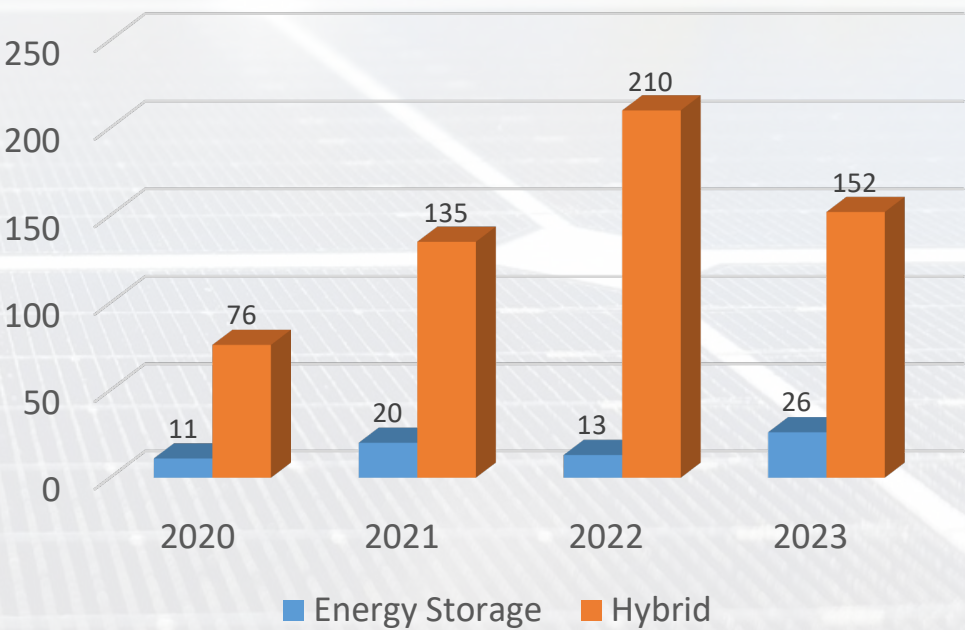
Central Hudson

ESS Interconnections

ESS & Hybrid Applications - MW



ESS & Hybrid Applications - Quantity

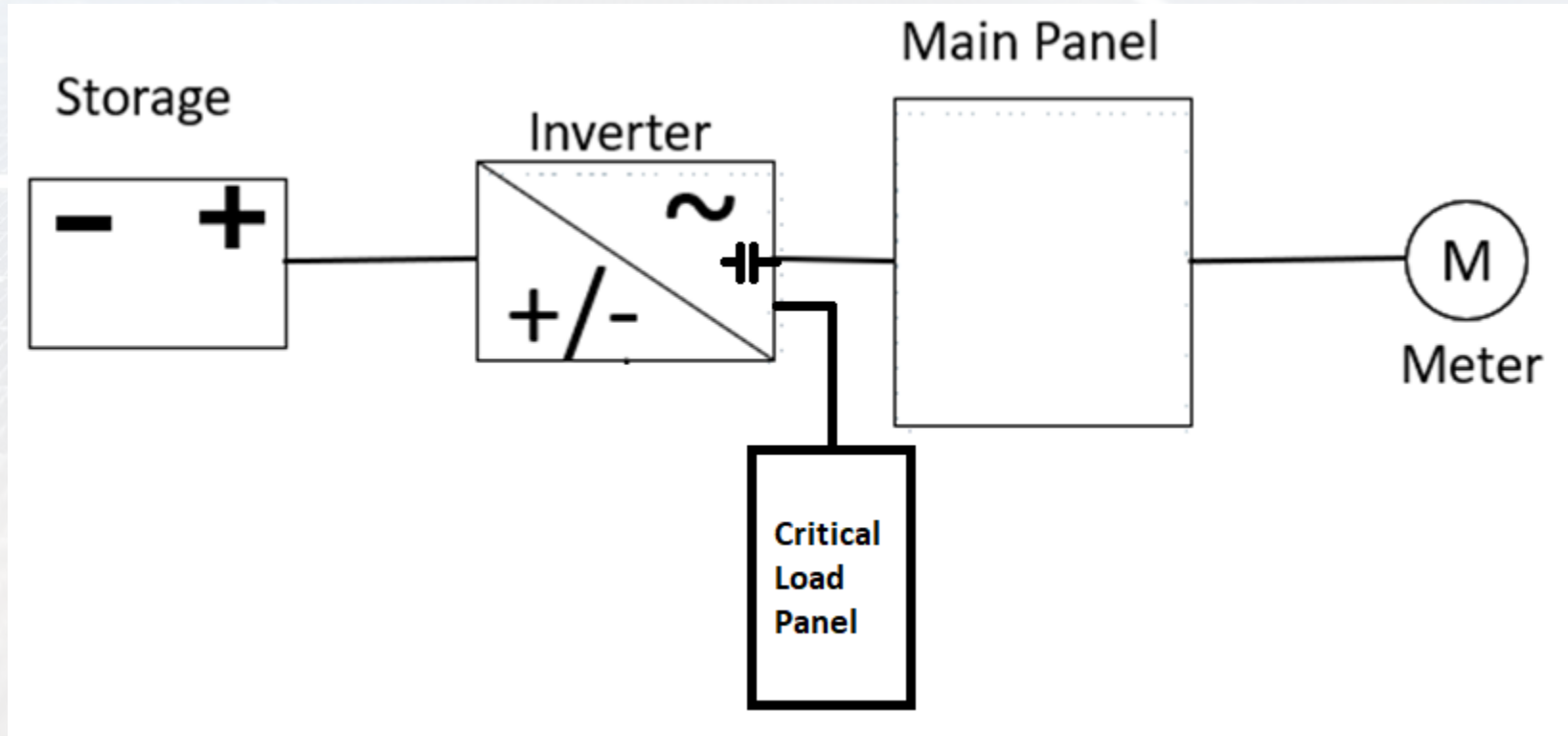


Inverter Types

- Stand Alone
 - Grid forming
 - Generate power while not connected to the grid
- Utility Interactive
 - Grid following
 - Generate power while connected in parallel to the grid
 - Interconnection application required
- Multimode
 - Switches from grid forming to grid following
 - Used with ESS

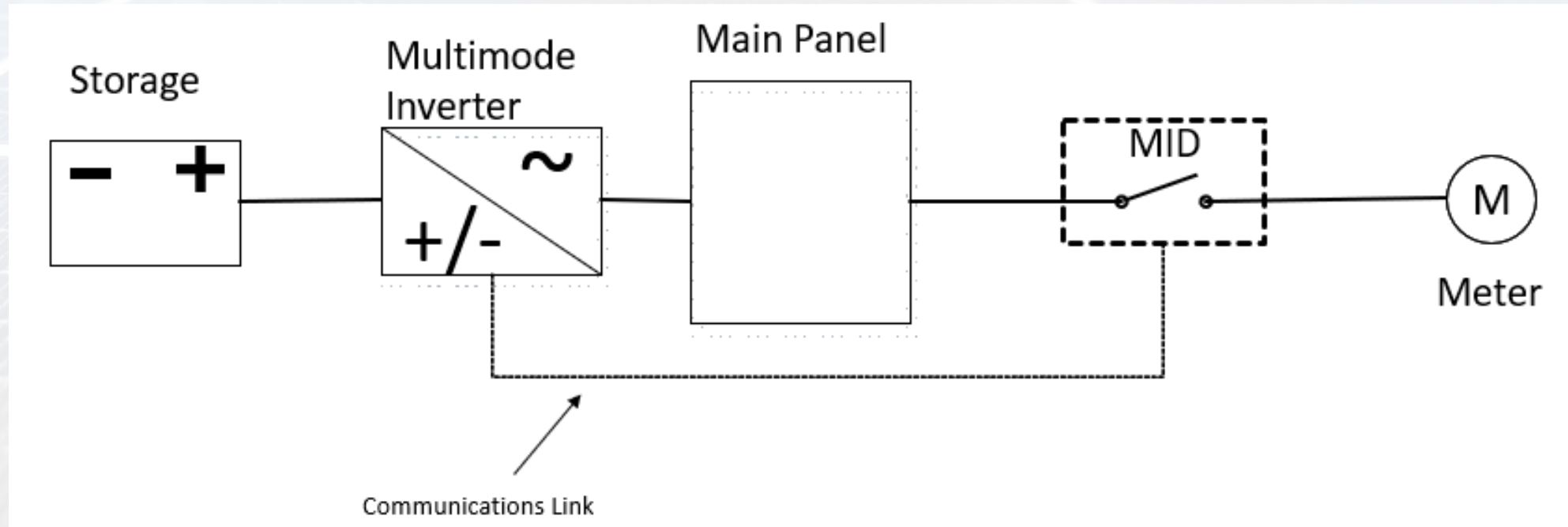
DC Coupled ESS

- Isolating switch located within the inverter
- Inverter contains output for critical loads



AC Coupled ESS

- External isolating switch or Microgrid Interconnection Device
- Whole or partial home backup



What is CRD Multimode?

- CRD stands for Certification Requirements Decision
- The standard that will test multimode inverters and their corresponding Microgrid Interconnection Devices to confirm proper operation (i.e. isolating from and reconnecting to the grid)

When is CRD Multimode applicable?

- Applicable to any ESS with a multimode inverter and MID

CRD Multimode Implementation

- NY Joint Utilities (JU) presented at January 2024 ITWG meeting
 - Submitted Presentation: [2024-01-17-ju-presentation_ul-1741-crd-for-multimode-jan-itwg-meeting.pptx \(live.com\)](#)
 - Submitted Memo: [2024-01-16-ju-ul-crd-for-multimode-memo_final.docx \(live.com\)](#)
 - NY JU received support and feedback from UL
- Industry responded to JU at February 2024 ITWG
- Next steps:
 - Develop CRD Multimode implementation timeline
 - Receive feedback from Inverter Manufacturers on progress towards compliance
 - Develop interim requirements before equipment comes to market with CRD Multimode certification

