

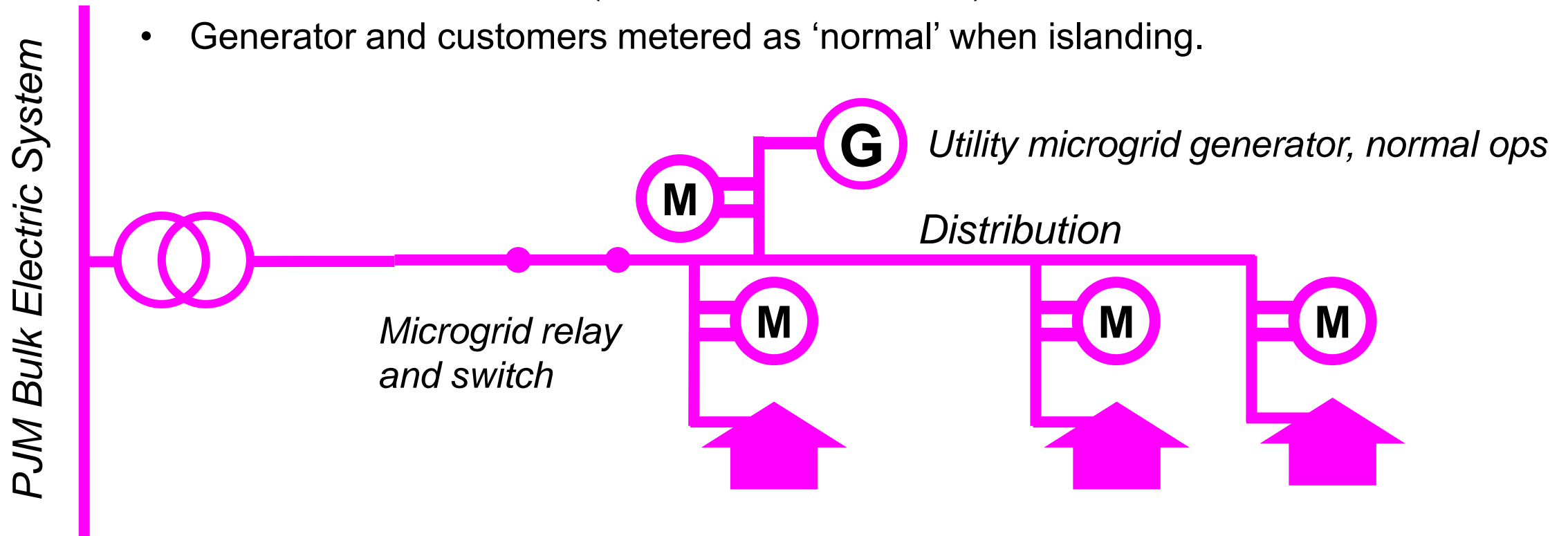


Utility Microgrid Generation – Initial and Draft Considerations on Islanded Operations and Market Participation

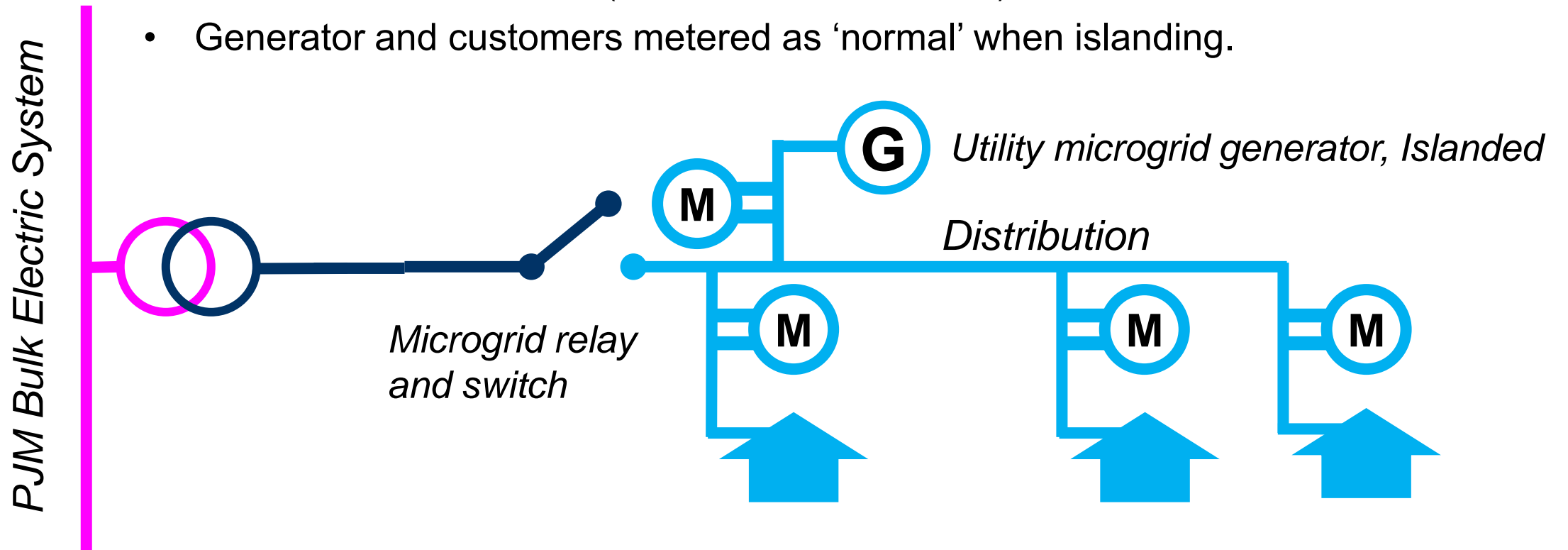
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DERS – May 20, 2019

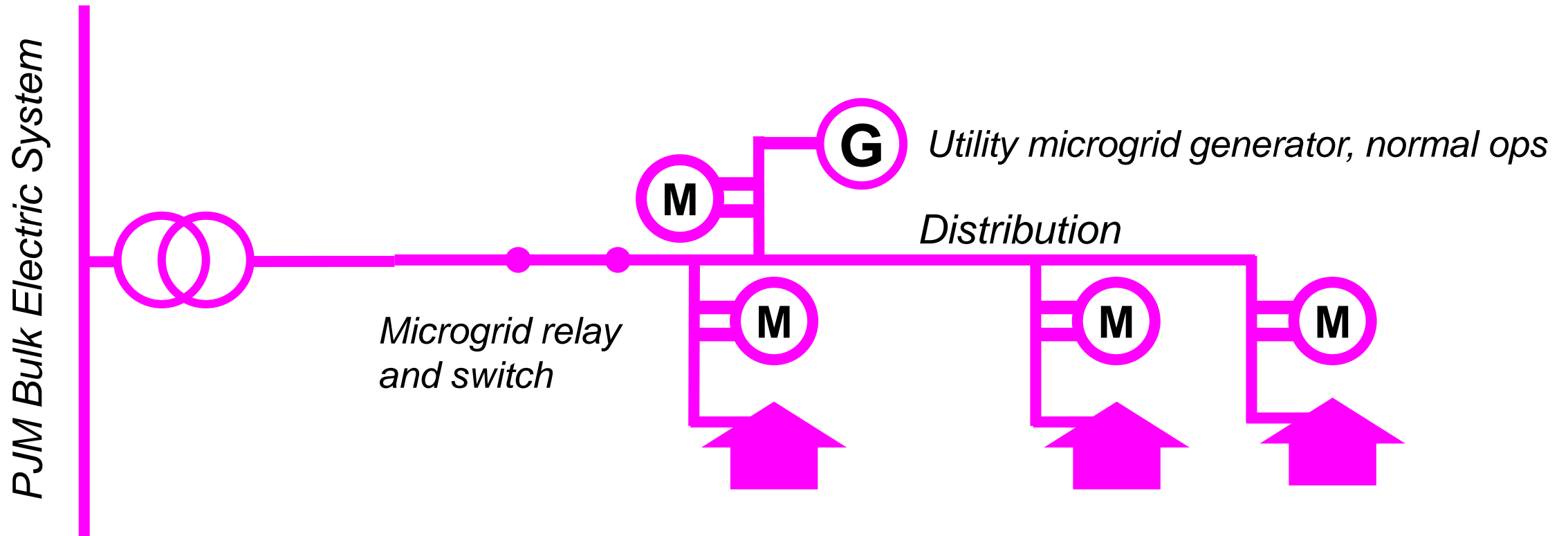
- A ‘utility microgrid’ uses utility-owned wires to serve load during islanding.
- ‘Utility microgrid generation’ is a PJM wholesale generator that also has the ability to directly serve load as part of a microgrid when islanded.
- Not a PJM-defined term (not in Tariff or Manuals)
- Generator and customers metered as ‘normal’ when islanding.



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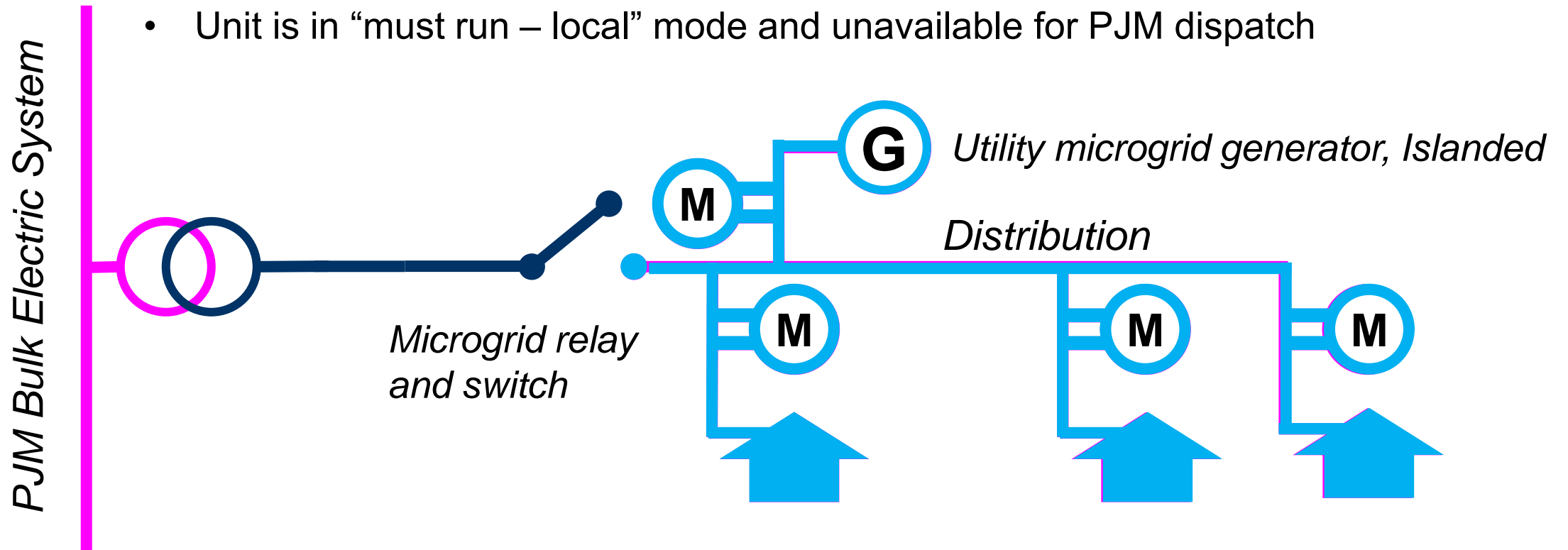


- Generator can provide all capacity, energy, and ancillary services technically capable of providing.
- Must provide telemetry for relay/switch status to PJM – ‘open’ or ‘closed’



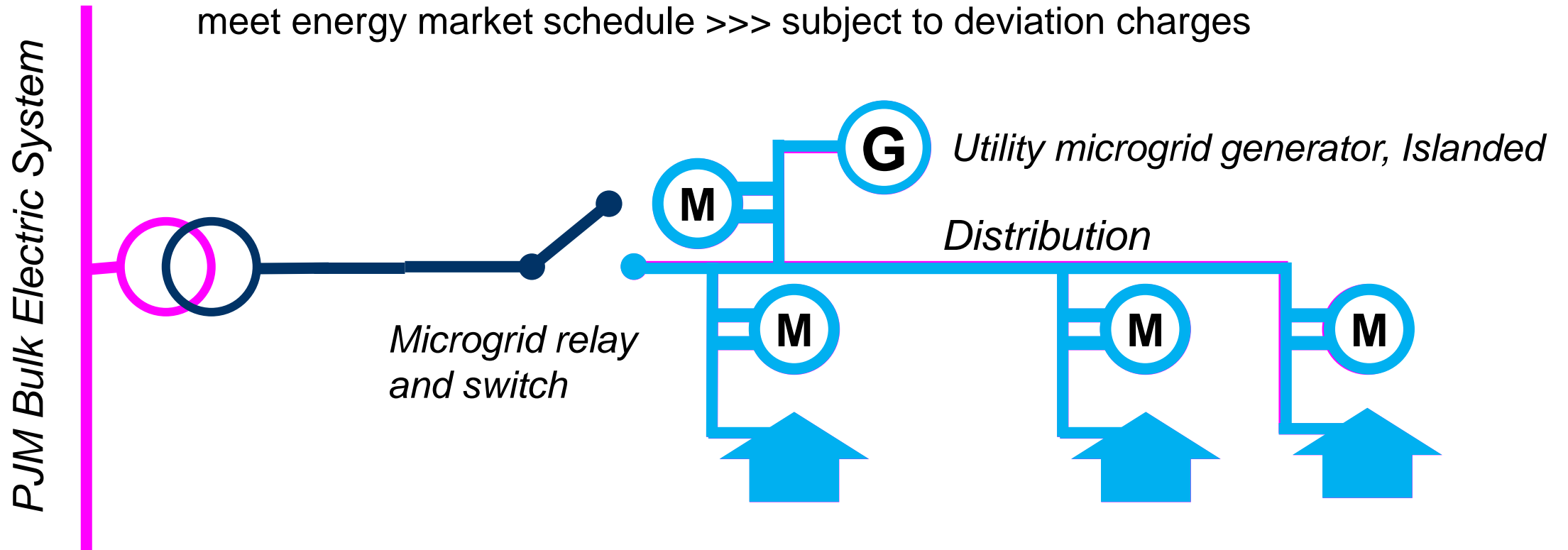
Market Considerations – Islanded Ops – Capacity

- Unit’s ICAP/UCAP determined as normal; MW quantity offered into RPM determined by owner
- Unit’s output when islanded used to determine performance during Performance Assessment Interval
- Unit is in “must run – local” mode and unavailable for PJM dispatch



Market Considerations – Islanded Ops – Energy Market

- Unit is in “must run – local” mode and unavailable for PJM dispatch
- Generation and Load settled at LMP, as per normal through Power Meter and InSchedules
- Potential reduction in generation output to match island load may affect ability to meet energy market schedule >>> subject to deviation charges



Market Considerations – Islanded Ops – Ancillary Services

- Relay status indicates unit is unavailable to provide Reserves or Regulation while islanded; must be made unavailable in Markets Gateway.
- Financial and/or performance penalties associated for the hours in which the unit was committed but unavailable, as per existing rules.

