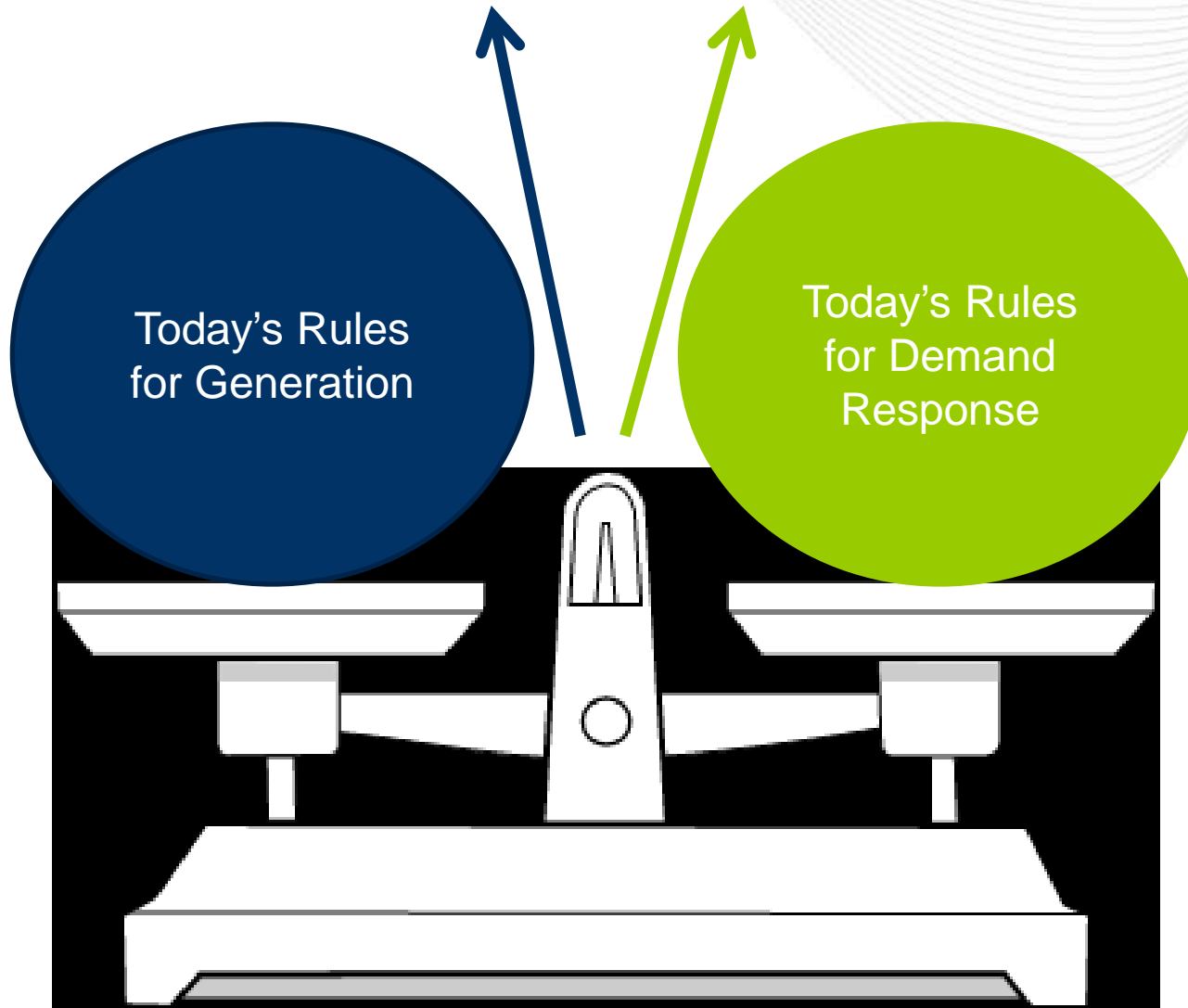


Update: Special MIC – Distributed Energy Resources (DER)



Operating Committee
September 12, 2017



- Interconnection and wholesale market seller certification process
- Metering and accounting logic for A/S and Energy participation
- Aggregation rules and processes
 - Location, size, how PJM will model, price, and dispatch

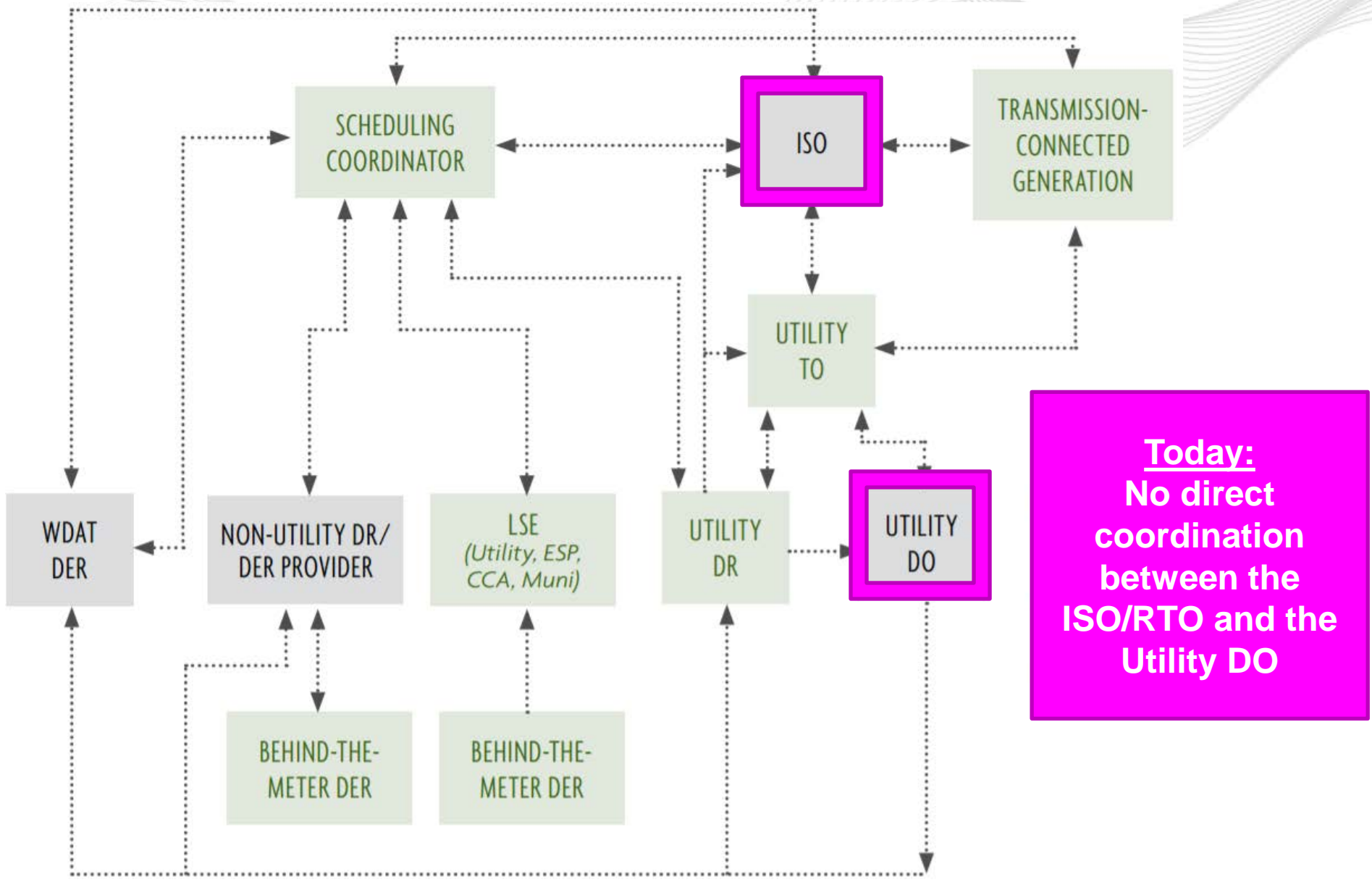
- Recent [presentation](#) from CAISO and PG&E about the [More Than Smart](#) initiative and recent [report](#) on this topic

Main Challenges

- Distribution -- large and complex topology
- Frequency of distribution outages and use of switching configurations
- DER effects on distribution system phase balance and voltage regulation
- Forecasting the short-term effects of DERs on gross and net load
- Lack of visibility, situational awareness, and control

Recommendations (a few, paraphrased)

- Communicating DER schedules
 - ISO >>> Distribution Operator (DO)
- Communicating advisory information on system conditions
 - DO >>> DER Provider
 - Adjust bids / submit outage as needed
- Consider unique perspectives or challenges for municipal utilities



**Today:
No direct
coordination
between the
ISO/RTO and the
Utility DO**

Source: "Coordination of Transmission and Distribution Operations in a High Distributed Energy Resource Electric Grid", Prepared by staff of CAISO, PG&E, SCE, SDG&E with support from More Than Smart, Report, Figure 2, pg. 9

A diagram consisting of two circles. On the left is a grey circle containing the text "Special MIC on DER". A large, thick, orange curved arrow points from this circle to a larger orange circle on the right. The orange circle contains the text "DER Senior Task Force".

Special MIC
on DER

DER
Senior Task Force

- Issues are cross-functional and should not be in a silo under markets-related group
- Will continue through 2018 and beyond
- Separate communication channel to the right stakeholders
- Targeting approval at October MRC