FERC Order 1920 (V) & 1920A (VII) Alternative Transmission Technologies

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Order 1920 and 1920A Requirements

Order 1920 and 1920A Requirements

Transmission providers in each transmission planning region to consider, in Long-Term Regional Transmission Planning and existing Order No. 1000 regional transmission planning process, for each identified transmission need:

Enumerated Alternative Transmission Technologies (ATTs)
1. Dynamic line ratings
2. Advanced power flow control devices
3. Advanced conductors
4. Transmission switching

Order 1920 and 1920A Requirements

Transmission Providers Must:
1. Identify, with sufficient detail in their OATTs, the point or points in a given process at which the transmission providers consider ATTs
2. Consider whether regional transmission facilities that include ATTs would be more efficient or cost-effective
3. Culminate their evaluation process in an explanation, that is sufficiently detailed for stakeholders to understand, why ATTs were or were not incorporated into selected regional transmission facilities

PJMs Proposed Compliance

General Compliance Strategy

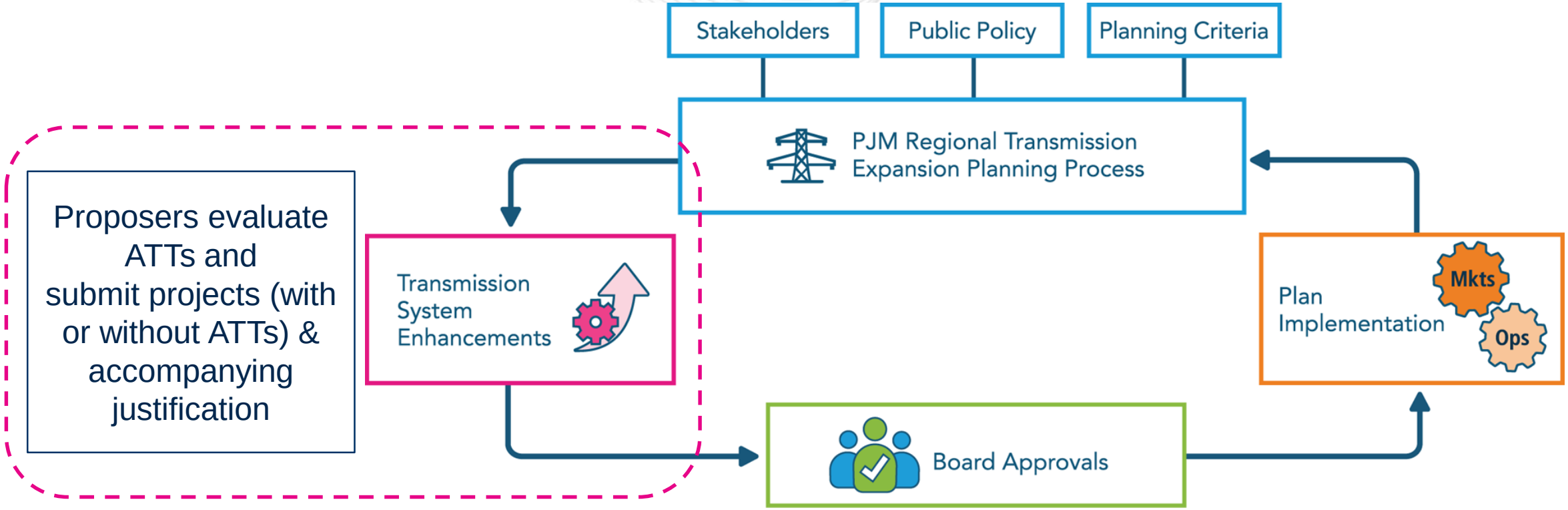
PJM TOs and project proposers within the PJM footprint will be required to:

- Consider the incorporation of ATTs.
- Provide justification, with sufficient detail, on why ATTs were *or* were not included.

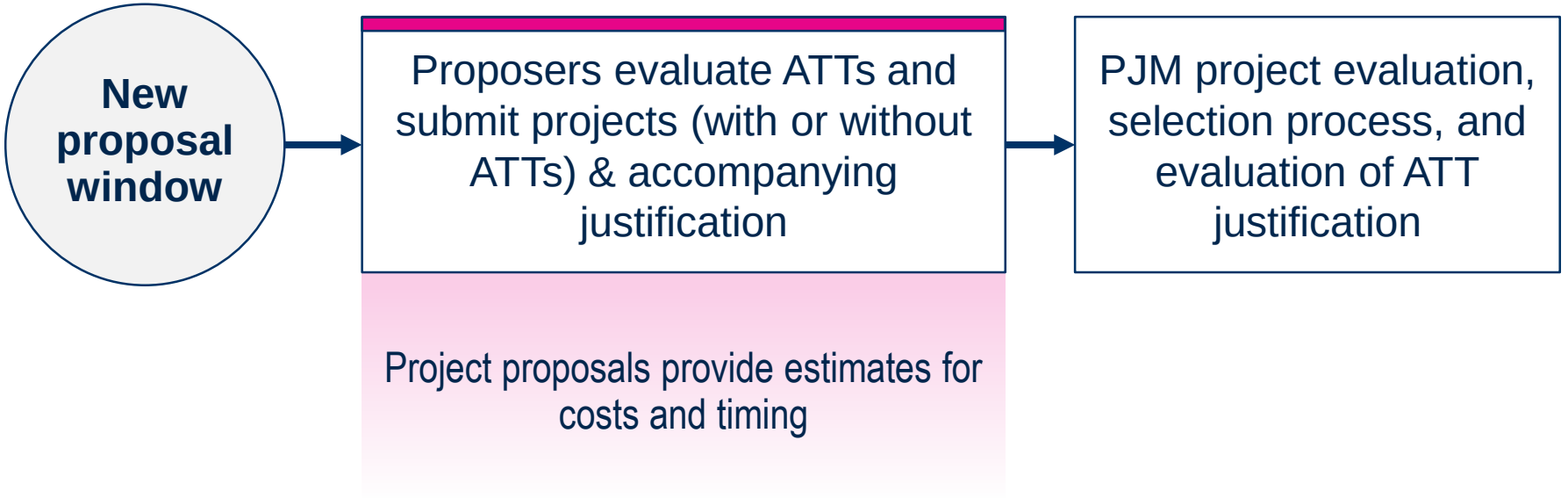
PJM will:

- Evaluate all proposals (including projects that utilize ATTs) through existing processes.
- Evaluate the inclusion or exclusion of ATTs based on the information provided using the proposing entities justification (per requirement above).
- Memorialize use cases where ATTs would not be appropriate utilizing published technical reference guides for suggested usages and individual details specific to a technology (link).
- Memorialize in the OATT the point or points in a given process at which the transmission providers evaluate ATTs.

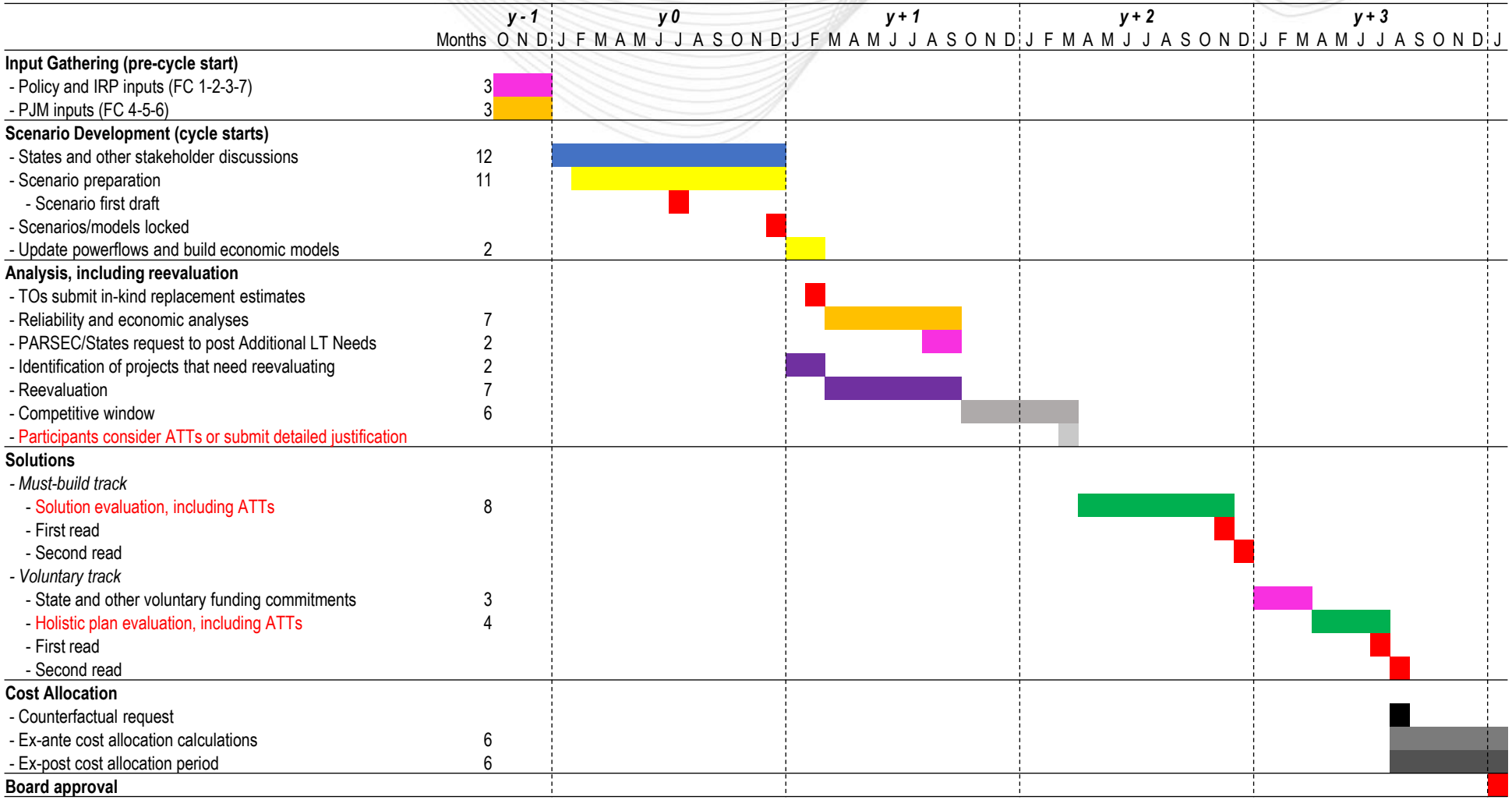
Regional Transmission Expansion Process



Order 1000 Competitive Planning Process



LTRTP Cycle



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FERC Order 1920

Alternative Transmission Technologies

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Appendix

Definitions

- Advanced Conductors: Include present and future transmission line technologies whose power flow capacities exceed the power flow capacities of conventional aluminum conductor steel reinforced conductors.

- Advanced Power Flow Control Devices: Devices can help the system operator control power flows over a given path and can include phase shifting transformers (also known as phase angle regulators) and devices or systems necessary for implementing optimal transmission switching. Advanced power flow control devices allow power to be pushed and pulled to alternate lines with spare capacity leading to maximum utilization of existing transmission capacity.

- Dynamic Line Ratings: A transmission line rating that applies to a time period of not greater than on hour and reflects up-to-date forecasts of inputs such as (but not limited to) ambient air temperature, wind, solar heating, transmission line tension, or transmission line sag.

- Transmission Switching: Transmission switching is the opening or closing of transmission elements to safely route power and direct flows away from congestion, based on pre-existing forward analysis.