

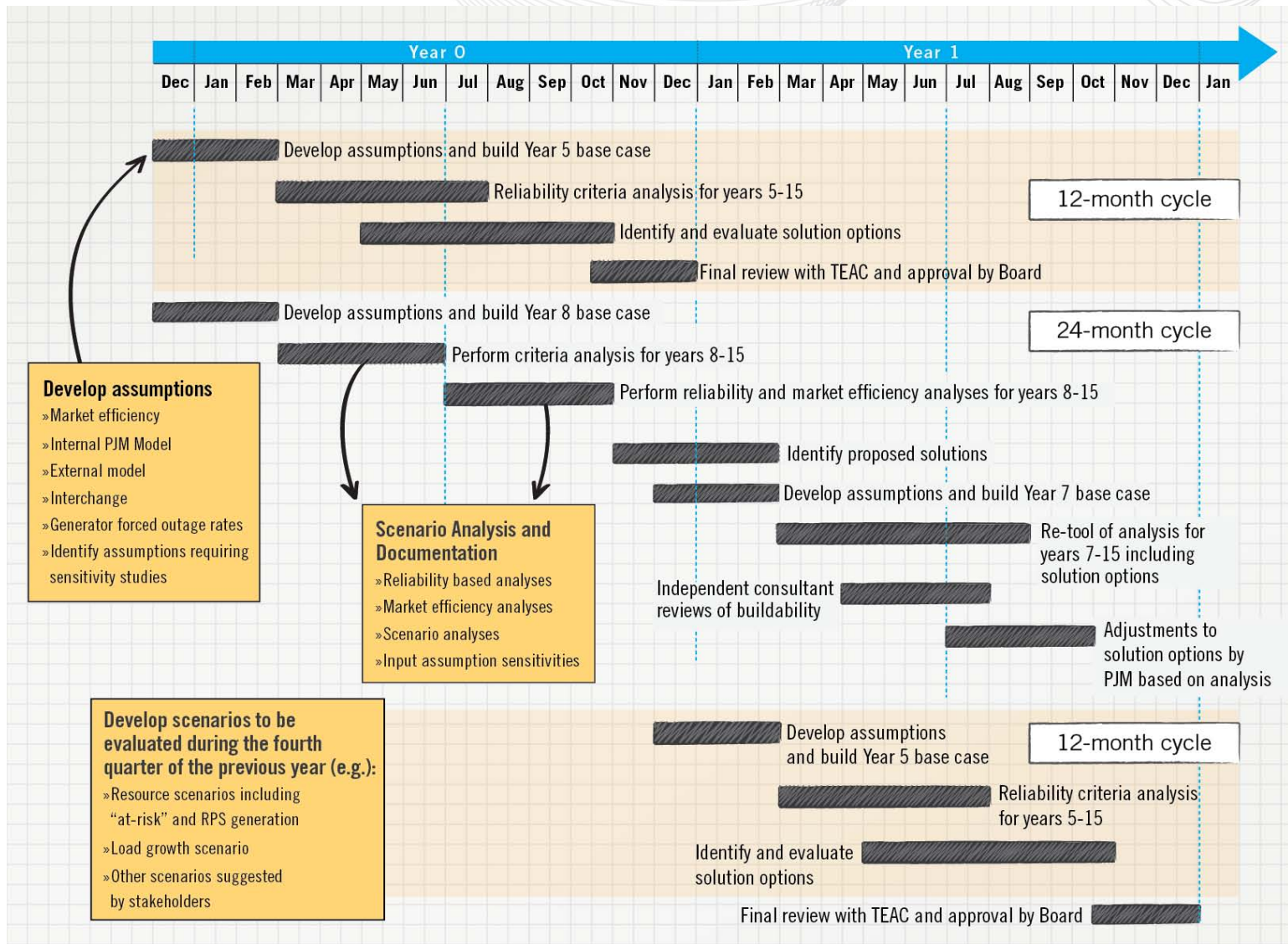
Order 1000 Compliance Strawman

ROFR Issues

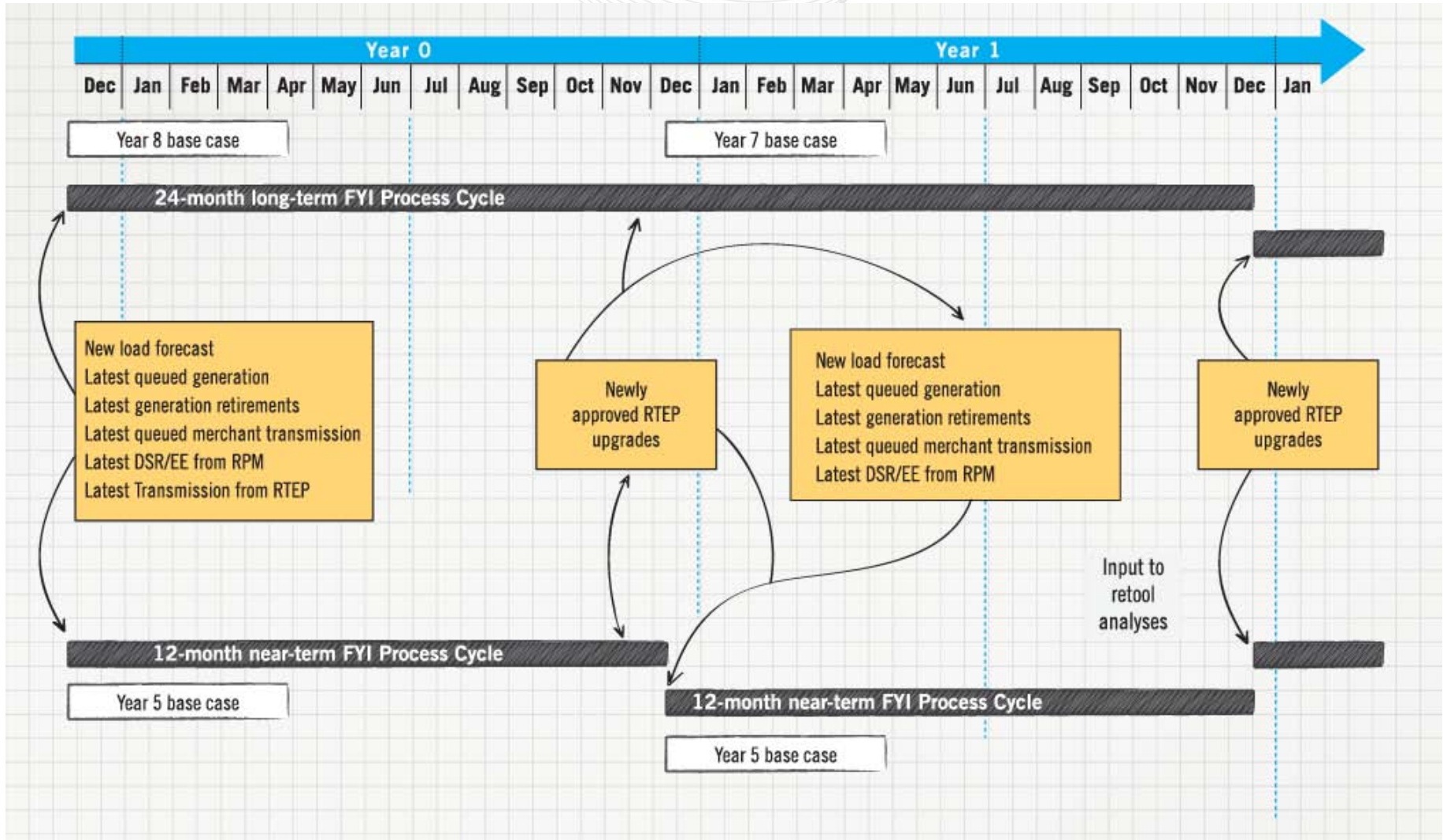
RPPTF
July 19, 2012

- 12-month cycle
 - Intended to examine reliability at all voltage levels over years 1-5
 - Re-examines previously approved projects based on changing conditions
 - Board approves 400 – 450 projects each year
 - Most projects are identified for years 4 and 5 of planning cycle
- 24-month cycle
 - Intended to look at higher voltage, more regional issues over years 7-15
 - Targets reliability needs in year 7 and beyond
 - Identifies market efficiency needs at all voltage levels
 - Will include analysis of public policy needs

24 Month and 12 Month Planning Cycles



24 Month and 12 Month Planning Cycles



- Allow sufficient time for analysis of needs before proposal submission
- Provide advance signals to market to promote consideration of non-transmission solutions
- PJM planning process must look to identify optimal solutions – not just select among proposed projects
- Process cannot be allowed to impact timeliness of reliability solutions

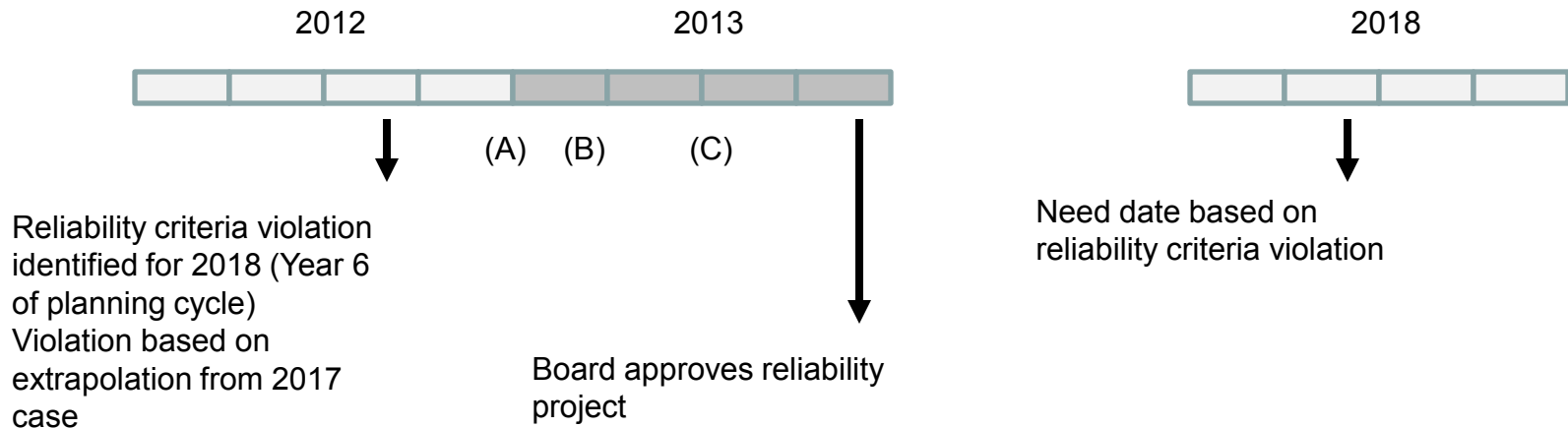
- Discussion at last meeting and polling results suggest
 - Reliability violations in earlier years can be left to 12-month cycle and reserved to incumbent transmission owners
 - 24-month cycle should be modified to examine all voltage levels beyond some year to ensure opportunities for non-incumbents in a proposal process
 - Would also identify lower voltage issues earlier to allow for resolution through proposal process in a timely manner
 - Dealing with violations in an extended 12-month cycle, such that upgrades would not be resolved before year-end, is not desirable
 - A short proposal window within the 12-month cycle could be acceptable if violations are resolved by year-end

First Identified			
Year 7			Standard 24-month cycle – 4 month proposal window – 5 ½ years for assigned entity to construct
Year 6			Standard 24-month cycle – 4 month proposal window – 4 ½ years for assigned entity to construct
Year 5	Standard 12-month cycle – assign all to incumbent – 4 ½ years to construct	12-month cycle with proposals accepted before August 31 – 4 ½ years for assigned entity to construct	Standard 24-month cycle – 4 month proposal window – 3 ½ years for assigned entity to construct
Year 4	Standard 12-month cycle – assign all to incumbent – 3 ½ years to construct	12-month cycle with proposals accepted before August 31 – 3 ½ years for assigned entity to construct	
Year 3	Standard 12-month cycle – assign all to incumbent – 2 ½ years to construct		
Year 2	Standard 12-month cycle – assign all to incumbent – 1 ½ years to construct		

PJM Preferred Options

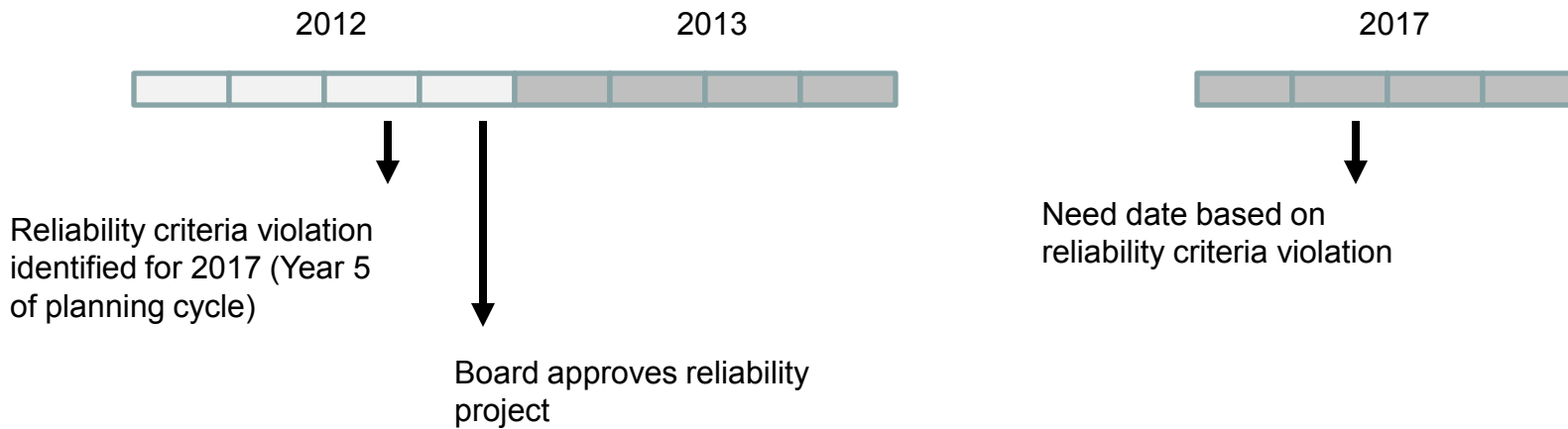
First identified in Year 6 – Expected in Year 4 in next cycle

- Current 24-month cycle
 - Utilize proposal window (Nov – Feb) (A)
 - Update models in 2013 and re-validate 2018 criteria violations (now in Year 5) (B)
 - Evaluate proposed solutions, identify optimal solution (including adjusting proposed solutions or identifying new solution) (C)
 - Make recommendation to Board for approval before year end
 - Assign upgrade to constructing entity with approximately 4 ½ years to construct



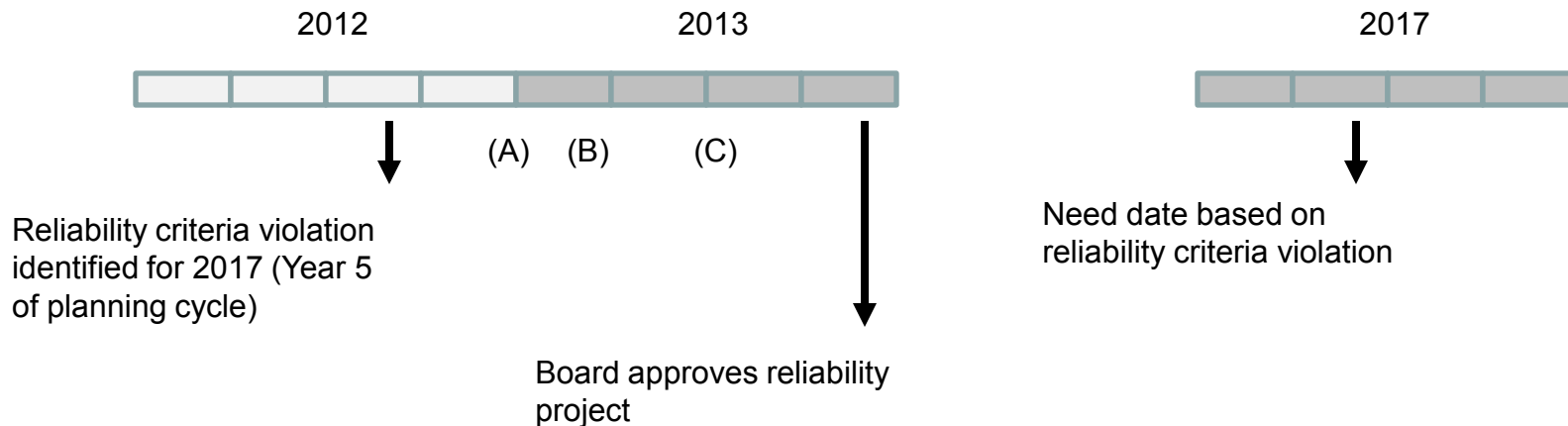
First identified in Year 5

- Current 12-month cycle
 - Identify and evaluate solution(s), identify optimal solution
 - Make recommendation to Board for approval before year end
 - Assign upgrade to incumbent TO with approximately 4 ½ years to construct



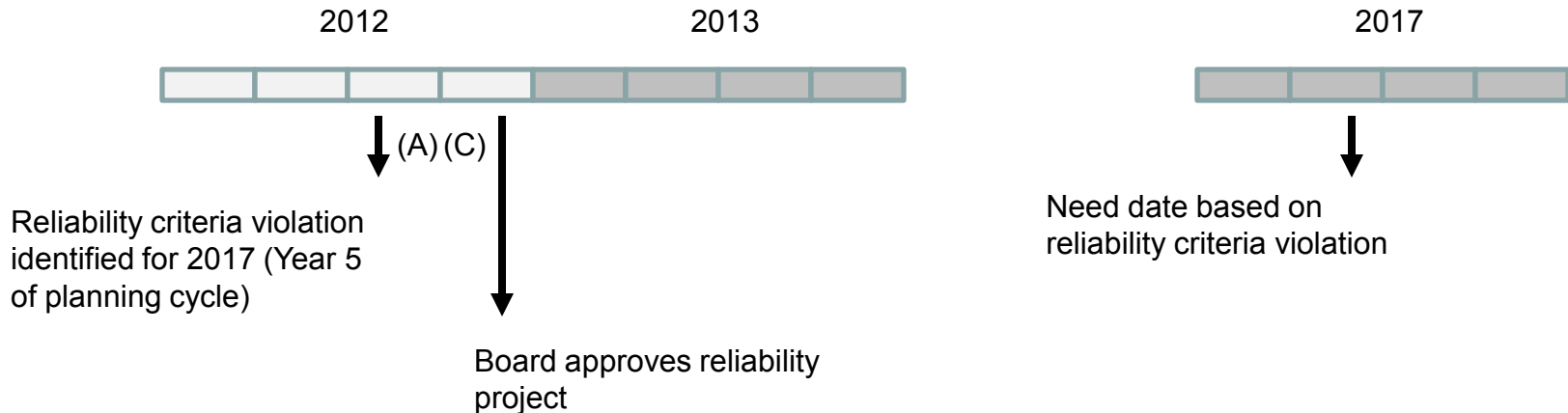
First identified in Year 5

- Current 24-month cycle
 - Utilize proposal window (Nov – Feb) (A)
 - Update models in 2013 and re-validate 2017 criteria violations (now in Year 4) (B)
 - Evaluate proposed solutions, identify optimal solution (including adjusting proposed solutions or identifying new solution) (C)
 - Make recommendation to Board for approval before year end
 - Assign upgrade to constructing entity with approximately 3 ½ years to construct
 - Solutions not in 2013 5-year case for interconnection studies



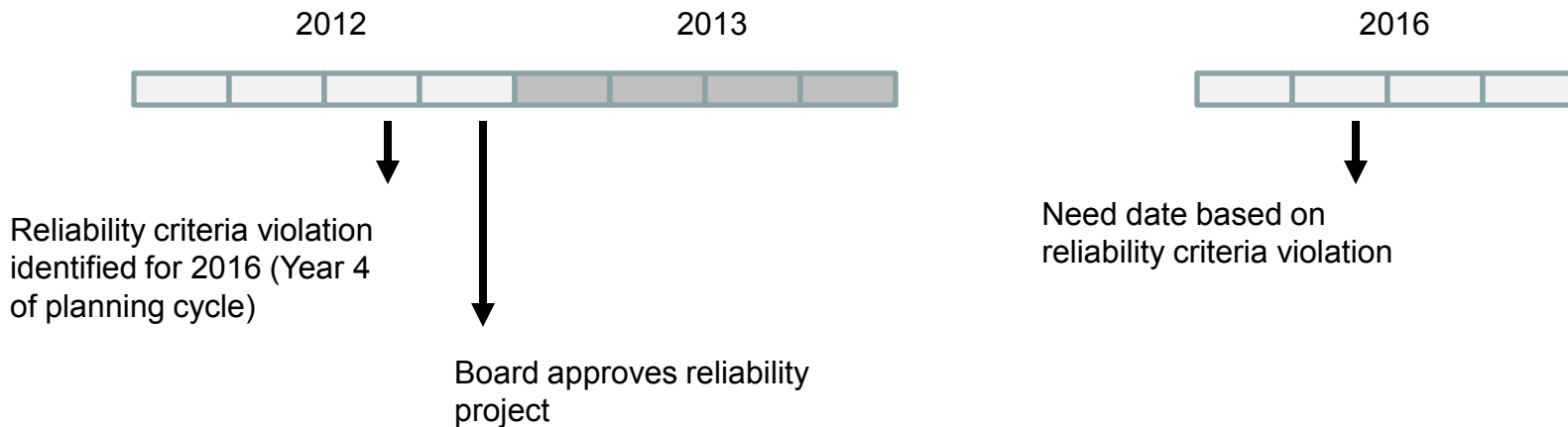
First identified in Year 5

- 12-month cycle with short proposal window
 - Accept proposals until August 31 (A)
 - Identify and evaluate solution(s), identify optimal solution (C)
 - Make recommendation to Board for approval before year end
 - Assign upgrade to constructing entity with approximately 4 ½ years to construct



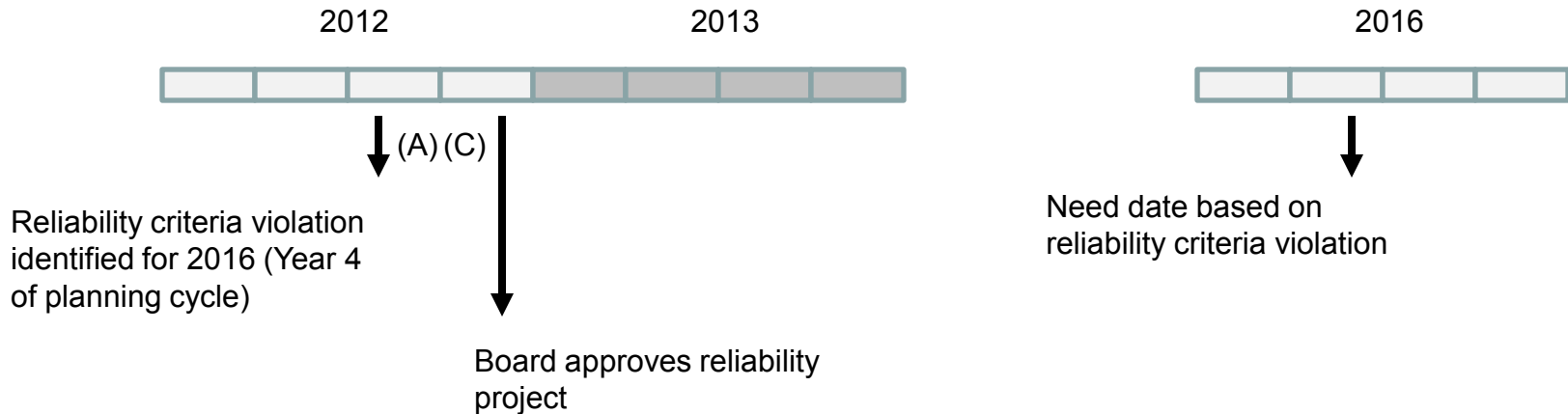
First identified in Year 4

- Current 12-month cycle
 - Identify and evaluate solution(s), identify optimal solution
 - Make recommendation to Board for approval before year end
 - Assign upgrade to incumbent TO with approximately 3 ½ years to construct



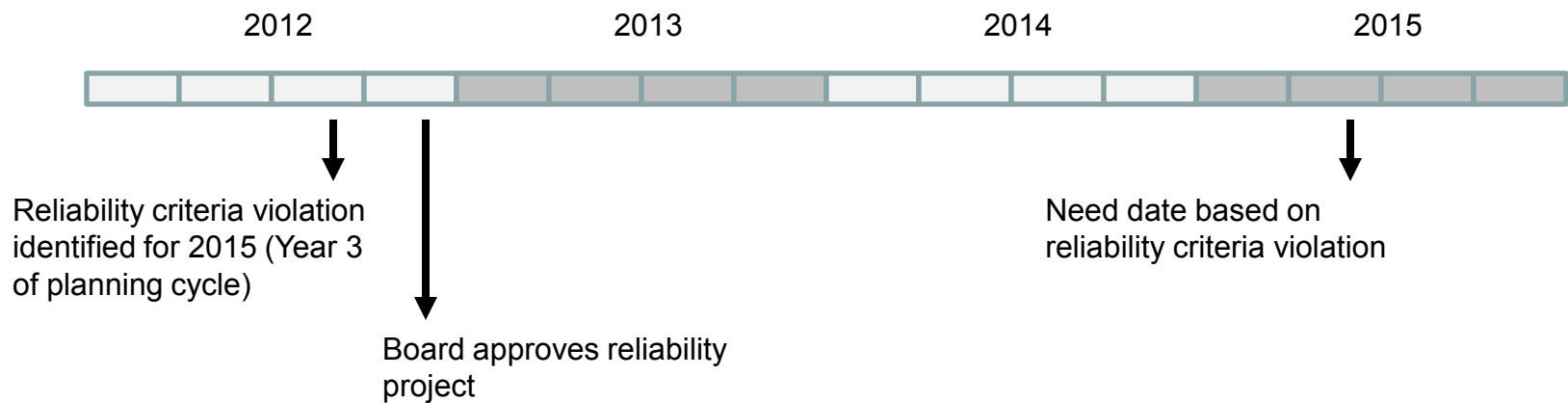
First identified in Year 4

- 12-month cycle with short proposal window
 - Accept proposals until August 31 (A)
 - Identify and evaluate solution(s), identify optimal solution (C)
 - Make recommendation to Board for approval before year end
 - Assign upgrade to constructing entity with approximately 3 ½ years to construct



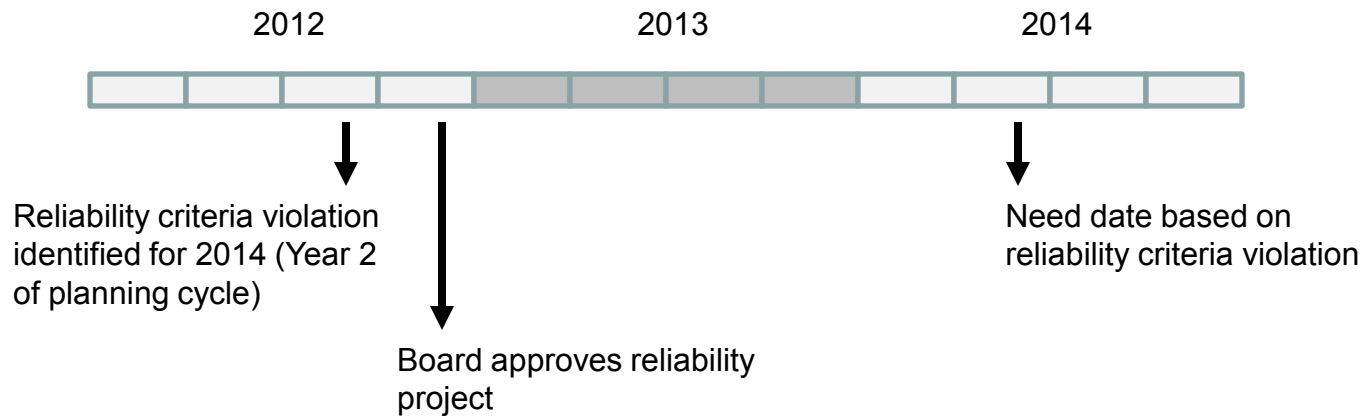
First identified in Year 3

- Current 12-month cycle
 - Identify and evaluate solution(s), identify optimal solution
 - Make recommendation to Board for approval before year end
 - Assign upgrade to incumbent TO with approximately 2 ½ years to construct



First identified in Year 2

- Current 12-month cycle
 - Identify and evaluate solution(s), identify optimal solution
 - Make recommendation to Board for approval before year end
 - Assign upgrade to incumbent TO with approximately 1 ½ years to construct



- Modify 24-month cycle to examine all voltage levels through year 7
 - Provides opportunity for all upgrades for violations that develop over time
 - Ensure that upgrades get into new RTEP and generation interconnection models when needed
 - Have to determine what cases are required each year
 - Existing cycle builds a Year 8 case followed by a Year 7 case in the second 12 months for higher voltage reliability issues
 - Year 5 case is built every year for 12-month cycle
 - Could interpolate loadings for Year 6 and 7 between these cases or build additional cases

- Should not need to modify 12-month cycle
 - Year 5 case and retool cases remain the same
 - Provide analysis results related to new violations to allow for proposals by August 31
 - Consider identifying transmission owner solutions for single contingencies to eliminate need for proposals when upgrades to existing infrastructure are available
- Project proposal required information
 - Needs to include the technical information that PJM will use to evaluate the proposed project
 - Initially reviewed at 4/26/2012 RPPTF meeting
 - <http://pjm.com/~media/committees-groups/task-forces/rpptf/20120420/20120420-pjm-strawman-on-project-selection.ashx>

- **Sponsoring entity information**
 - Company name, contact information etc.
- **Project description**
 - Include scope, interconnection points, configuration (e.g. overhead, underground, AC/DC etc), ROW, high level project schedule including CPCN, engineering, construction start, and in-service date.
 - Project cost estimate
- **Technical report**
 - Include assumptions and calculations demonstrating the efficacy of the project
 - Report should include information about the origin of power flow case and any modifications, market efficiency assumptions, station single line drawings and results of any sensitivity studies
 - Modeling information such as conductor type, calculated impedances, contingency files, *.idev and dynamics files

- Develop updated OA language
- Outline areas for updated PJM Manuals language
- Develop list of implementation questions
 - Work through implementation questions in sub-group
- Develop (pre)qualification requirements
- ??