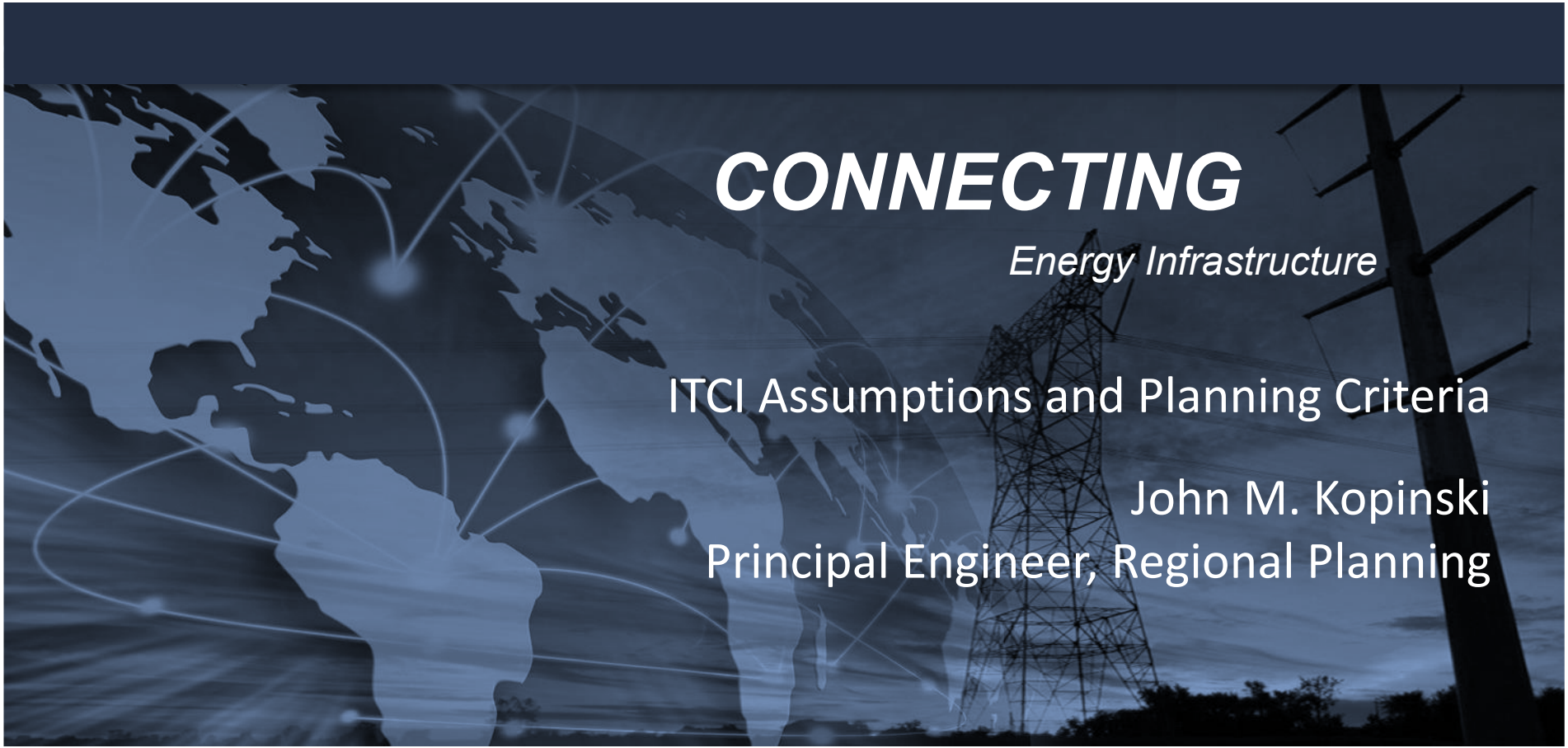

ITCI Assumptions and Planning Criteria

John M. Kopinski
Principal Engineer, Regional Planning

12/17/2021

ITC INTERCONNECTION (ITCI)

ITC Facilities in PJM

ITC owns and operates PJM network transmission facilities in southwest Michigan:

- 345kV Substation
- 345kV Transmission Line

PJM integration activities completed on June 1, 2016

Also Connects to ITC Owned Facilities in MISO (METC)

Zero Revenue Requirement Assets (No Regulated Rate)

ITCI Assumptions & Criteria

- **ITCI Uses the Same Planning Criteria as the Michigan MISO Assets (ITCT & METC)**
- **ITCI Planning Criteria Augments NERC and PJM Planning Criteria**
- **2021 Changes to Planning Criteria (Feb 2021)**
  - Revised Determination of Generator Rotor Angle Instability and Default Ride Through Criteria
- **Some ITCI Planning Criteria Differences From PJM Criteria Include:**

P1 Contingencies That Include a Prior Shutdown Considered for Shoulder Peak (85% peak load)	Max/Min Voltages 0.97/1.07 pu for P0 and 0.92/1.07 pu for P1-P7	P2.2 Bus Section Fault Considered to be a 3-Phase Fault to Ground
P4 Contingencies Considered to be a 2-Phase Fault to Ground	Some Additional Restrictions on Consequential Load Loss	End of Life Criteria

ITCI – Project Identification

- Annual Michigan planning assessment conducted to identify any system issues and corresponding projects
- Asset management programs to identify and replace equipment that is obsolete, failed, or at an end-of-life condition

ITCI Planning Criteria (PJM)

- **ITCI Planning Criteria Is Posted on PJM's Webpage:**

https://www.pjm.com/-/media/planning/planning-criteria/itc-holdings-planning-criteria.ashx?la=en

- **ITCI Facility Connection Requirements Is Posted on PJM's Webpage:**

http://www.pjm.com/-/media/planning/plan-standards/itci/itc-holdings-facility-connection-requirements.ashx?la=en

ITC®