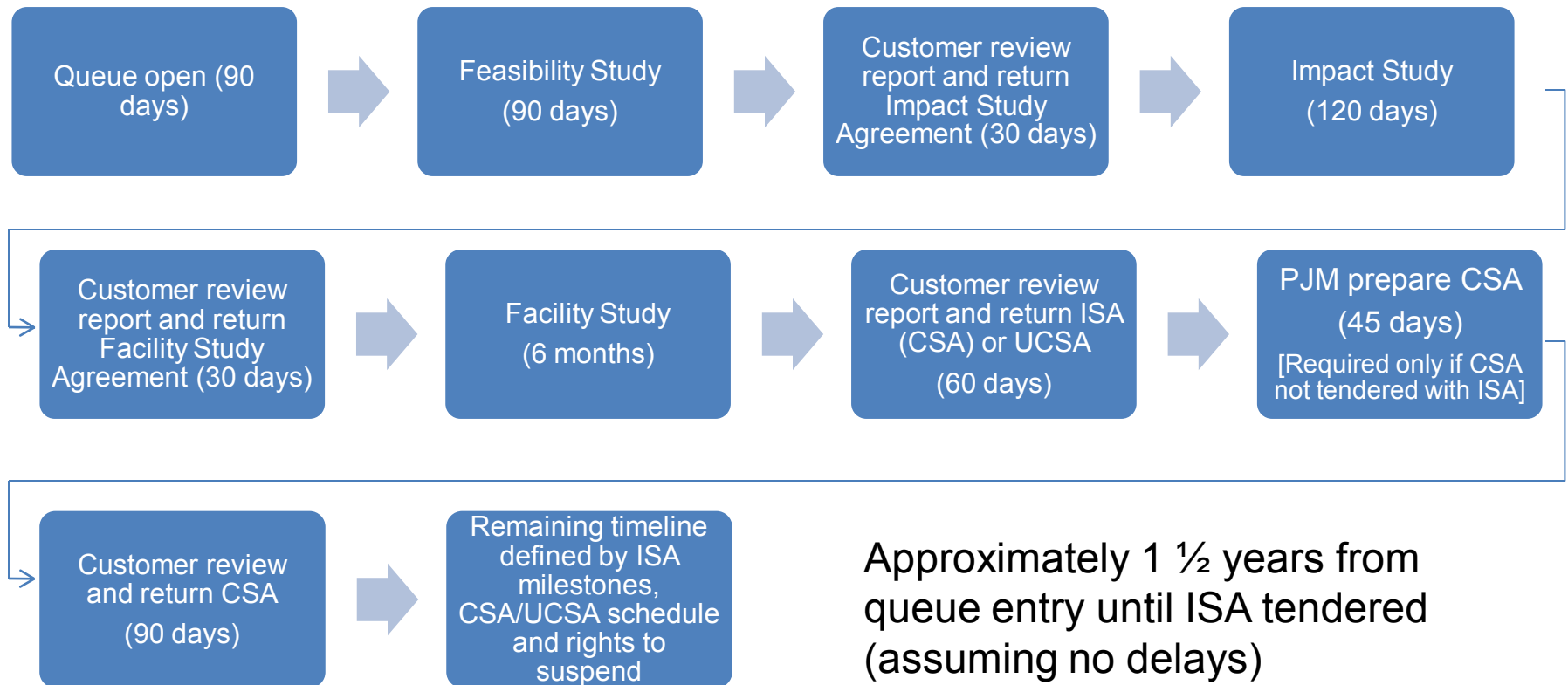


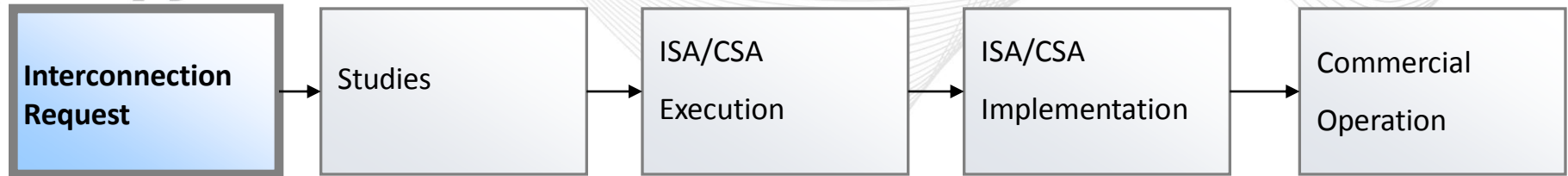
Generation Interconnection Process

NEMSTF
Education Session 1
January 19, 2012

Follows FERC Pro Forma Process

- Queues are “open” for a 3 month period
 - Spreads Workload Out Over Year
 - Generation, Merchant Transmission, ARR, and Long-Term Firm Transmission Service Queues are Fully Integrated
- Specific Rights Based on Queue Position and Satisfaction of Milestone Requirements
 - Feasibility, System Impact, and Facilities Studies Identify Required Upgrades
 - Studies provide progressively more detail
 - Queue volume and drop-out rate require frequent re-studies
- Required Transmission Upgrades Based on Reliability Criteria – paid by Developer



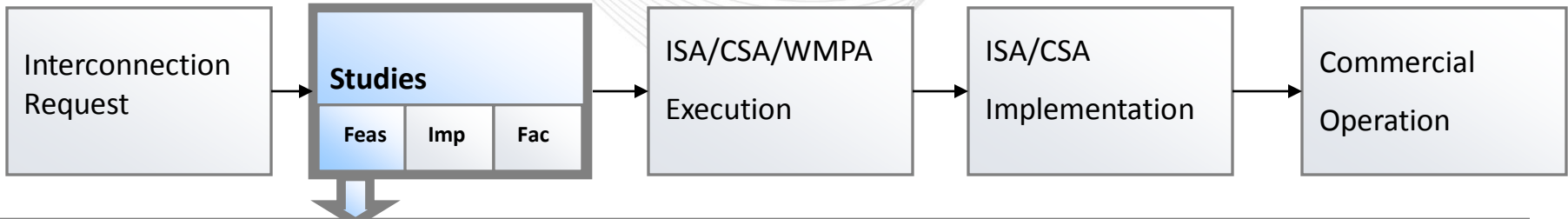


OATT Attachment N, Y, BB, S, EE

- N – Generation (>2 MW)
- Y – Generation (<= 2 MW)
- BB – Generation (< 10kW, inverter based)
- S – Merchant Transmission
- EE – Upgrade Request

Required Information

- Location
- Project Size
- Ownership (site control for generation requests)
- Equipment Configuration
- Planned In-Service Date
- Deposit
- Data



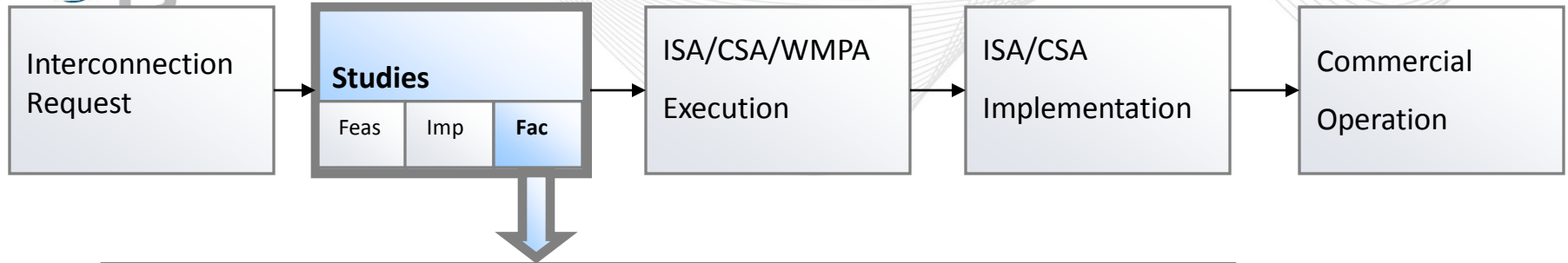
Feasibility Study (Long Term Firm - Initial Study)

- Required
 - Deposit based on request timing and MW/MVA size (later queue month = more money)
 - Site control for generation requests
 - In-service date within 7 years of entering queue (exceptions allowed)
- Study Completion
 - Target 90 Days after close of queue (PJM targets 60 days after queue close to provide load flow to Transmission Owners)
- Study By
 - PJM and TO (Contractor under direction of TO)
- Results
 - Attachment Facilities Needed for Interconnection
 - Identify Transmission Overloads and Required Upgrades (Costs and Construction Schedule Estimates for primary POI)
 - Identify overloads associated with secondary POI (no cost or schedule estimates)
 - Short Circuit Analysis



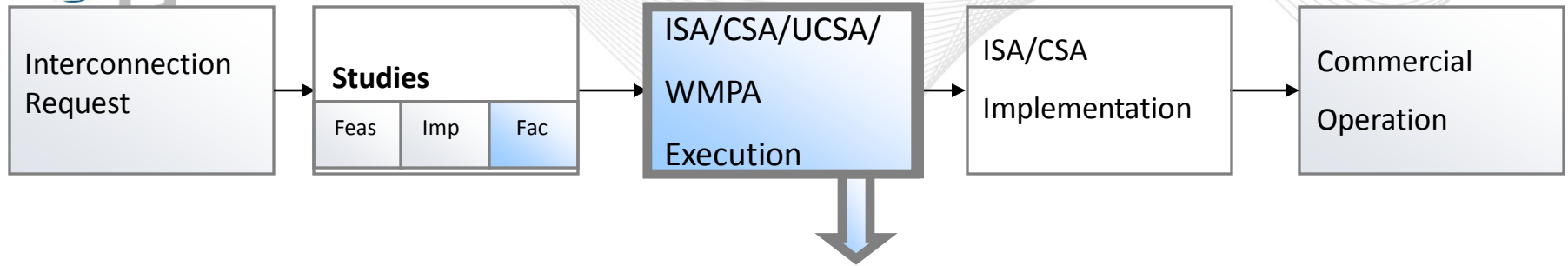
Impact Study (Start of analysis for Upgrade Requests)

- Required
 - Deposit based on MW/MVA size
 - Initial Air Permit Application (N/A for solar/wind projects)
 - Ownership (site control for Transmission Interconnection Requests)
- Study Completion
 - Target 120 days after execution of Impact Study Agreement (PJM targets 80 days following commencement of Impact Study to provide load flow to TOs)
- Study By
 - PJM and TO (Contractor under direction of TO)
- Results
 - Gen & Load Deliverability Analysis
 - Stability Analysis
 - Short Circuit Analysis
 - Cost Estimates and Allocations



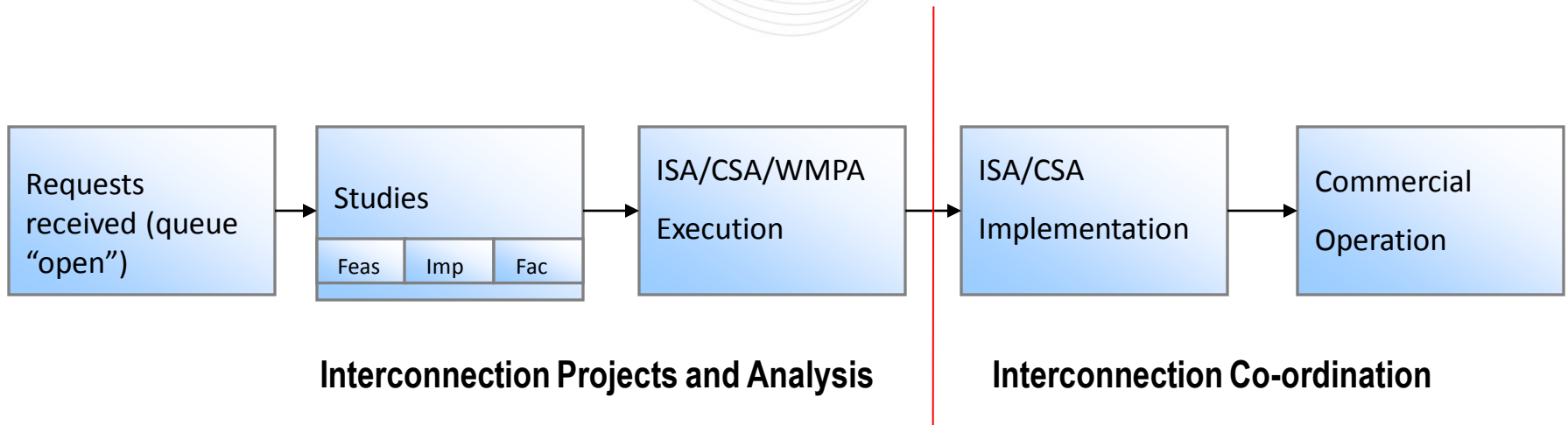
Facilities Study (Initial Engineering Review)

- Conduct governed by procedures as set forth in Attachment D of Manual M-14A
- Required
 - Deposit based on MW/MVA size
- Completion
 - 6 Months (estimated)
- Study By
 - TO (or Contractor under direction of TO)
- Results
 - Conceptual Design (Detailed Design as appropriate) for:
 - Attachment Facilities
 - Network Upgrades
 - Cost Estimates
 - Engineering and Construction Schedule
- Potential for Impact Study re-tool



Type of Interconnection Agreement used is based on FERC jurisdictional determination

- Interconnection Services Agreement (ISA) used if project is FERC jurisdictional
- Wholesale Market Participant Agreement (WMPA) used if not FERC jurisdictional
 - Will require additional 2 party Interconnection Agreement between Developer and TO
- Interconnection Construction Service Agreement (CSA) identifies terms, conditions, and coordinates construction activities for Attachment Facilities and Network Upgrades
- Upgrade Construction Service Agreement (UCSA) identifies terms, conditions, and coordinates construction activities for Network Upgrades



- Projects may drop out of the queue at any time
- Project size may be reduced but not increased
- Projects are withdrawn from the queue if they miss milestones or financial obligations

QUESTIONS ?