



HELPING OUR MEMBERS WORK TOGETHER
TO KEEP THE LIGHTS ON... TODAY AND IN THE FUTURE.

Three-Stage GI Study Process Overview

March 2019



SouthwestPowerPool



SPPorg



southwest-power-pool

Interconnection Customers

As SPP is working on the transitional plans to migrate for them previous Interconnection Study and Process methodology to the coming “Three Stage Process”, as outlined in this presentation, we also provide this link below to the SPP Compliance Filing with FERC, filed 16 April 2019.

https://www.spp.org/documents/59793/20190416_revisions%20to%20implement%20gi%20three-stage%20study%20process_er19-1579-000.pdf

Tariff Services Team

GIStudies@spp.org

31 May 2019

Benefits

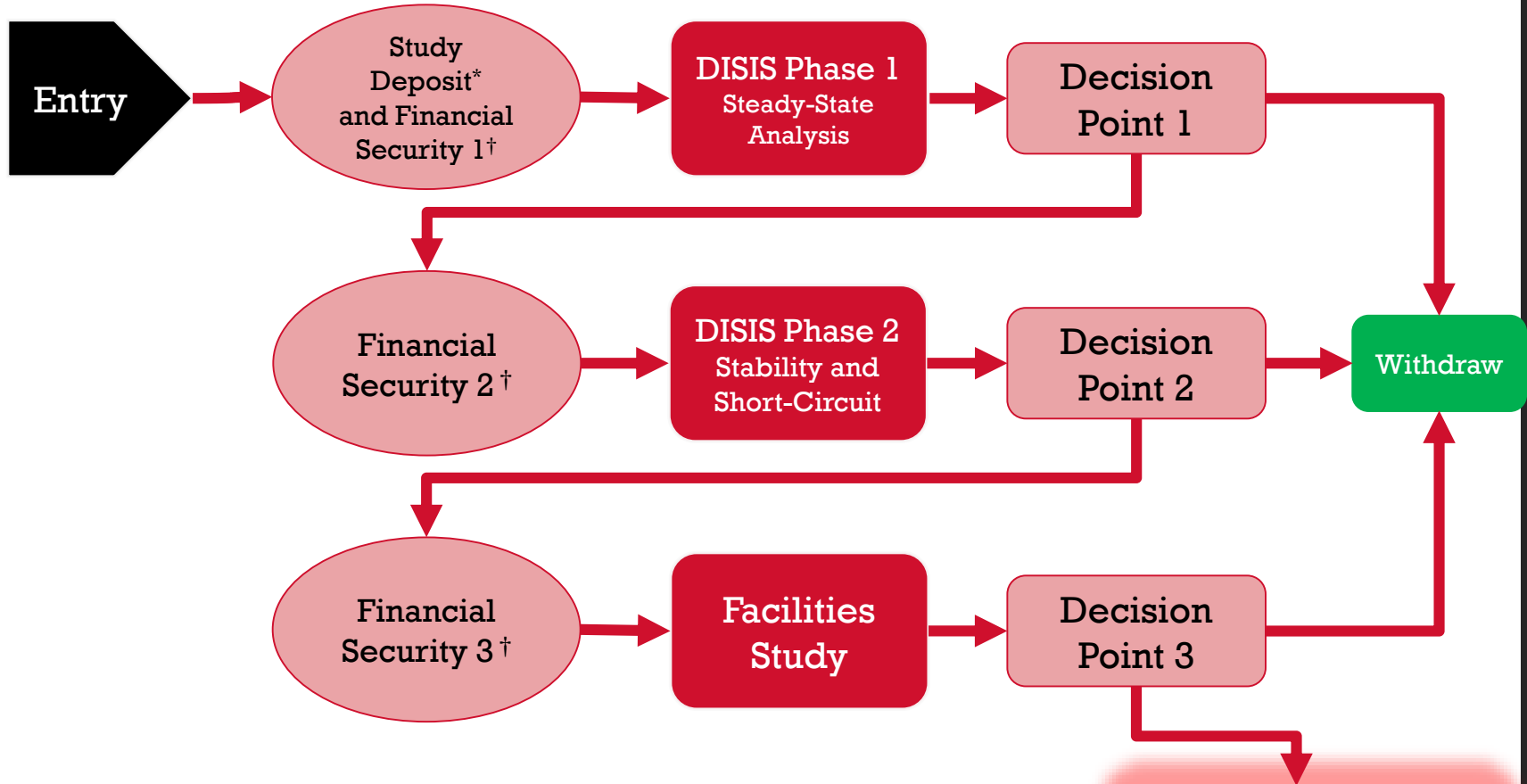
- Streamlined, simplified, less confusing.
 - Easier for SPP to administer
 - Easier for customers to understand and navigate
- Majority of upgrades are identified in Stage 1 which permits customers to make an informed decision prior to committing to a lengthy and expensive stability analysis.
- Tying financial security to upgrade cost allocation encourages customers to weigh the risks of proceeding at an earlier stage.
- Reduce the number of requests withdrawing late in the process, which reduces re-studies and uncertainty.

Tariff Filing

- FERC Docket: ER19-1579
- Filed: April 16, 2019
- Requested effective date: July 1, 2019
- Current status: Awaiting FERC Order

SPP GI Study Process

(Three-Stage)

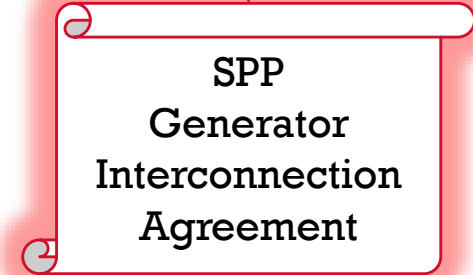


*Study Deposit Schedule

- 0-2 MW: \$25,000
- >2-20 MW: \$35,000
- >20-74 MW: \$50,000
- 75 MW+: \$90,000

† Financial Security Deposits

- Financial Security 1: \$2000/MW
- Financial Security 2: 10% of allocated upgrade costs or \$2000/MW (minimum)
- Financial Security 3: Additional 10% of allocated upgrade costs (total of 20%)





5 Months + 1 Month Review Period



Application and Study Agreement



Technical Data



Evidence of Site Control



Application Fee and Study Deposit



Financial Security
Deposit 1 = \$2,000/MW

Stage 1
Application

STAGE 1

Open Season

Stage 1

Decision Point 1

Stage 2

Decision Point 2

Stage 3

Decision Point 3

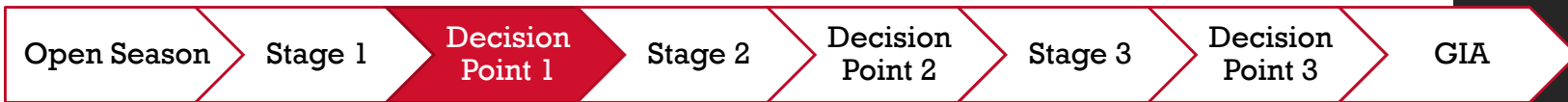
GIA

90 Days

Stage 1 Deliverables

- Steady-State Thermal and Voltage Analysis
- Short-Circuit Ratio
- Cost Estimates (+/-30%) for each new upgrade
- Initial Interconnection Facilities and Network Upgrades required
- Available affected system impacts, upgrades, and estimated costs





15 Business Days

Withdraw

Refund Stage 1 Financial Security Deposit

Continue

Financial Security 1 is at risk

Greater of:

\$2,000/MW

10% of SPP upgrade costs x cost allocation factor² less FS1

Optional Changes

Reduce request by up to 50%

Drop from NRIS to ERIS

Turbine/Inverter Change

STAGE 2

Open Season

Stage 1

Decision Point 1

Stage 2

Decision Point 2

Stage 3

Decision Point 3

GIA

120 Days

Stage 2 Deliverables

- Dynamic and Transient Stability Analysis
- Short-Circuit Analysis
- Refresh of the Stage 1 thermal and voltage analysis as needed
- Cost Estimates (+/-30%) for each new upgrade allocated to a request in the study.
- Available affected system impacts, upgrades, and estimated costs





Withdraw

- Stage 2 Financial Security Deposit is refunded
- Stage 1 Financial Security is refundable if costs exceed “penalty-free” threshold

Continue

Financial Security 1 and 2 are at risk

Pay Financial Security Deposit 3

20% of SPP upgrade costs less FS1 and FS2

Optional Changes

Reduce request by up to 10%

3 STAGE

Open Season

Stage 1

Decision Point 1

Stage 2

Decision Point 2

Stage 3

Decision Point 3

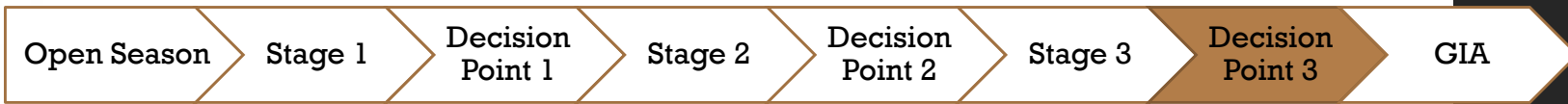
GIA

135 Days

Stage 3 Deliverables

- Refresh analysis as needed
- Facilities Study-level Cost Estimates (+/-20%) for each new upgrade allocated to a request in the study.
- Construction Lead Time Estimates
- Available affected system impacts, upgrades, and estimated costs





15 Business Days

Withdraw

- Financial Security 1, 2, and 3 are refundable if costs exceed “penalty-free” threshold

Continue

Financial Security 1, 2, and 3 are at risk

Review Report

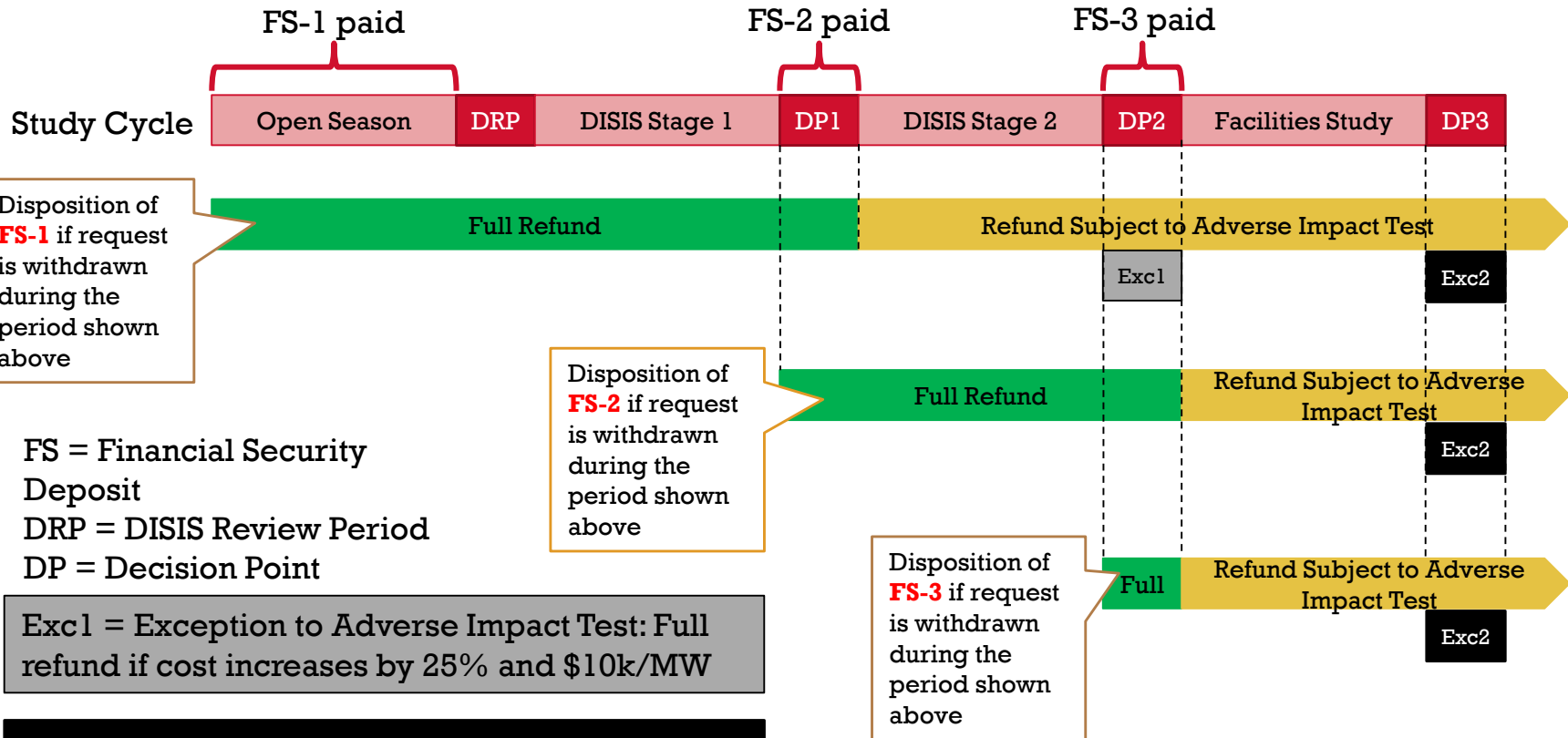
Provide comments on Stage 3 report

Begin negotiations on GIA with TO

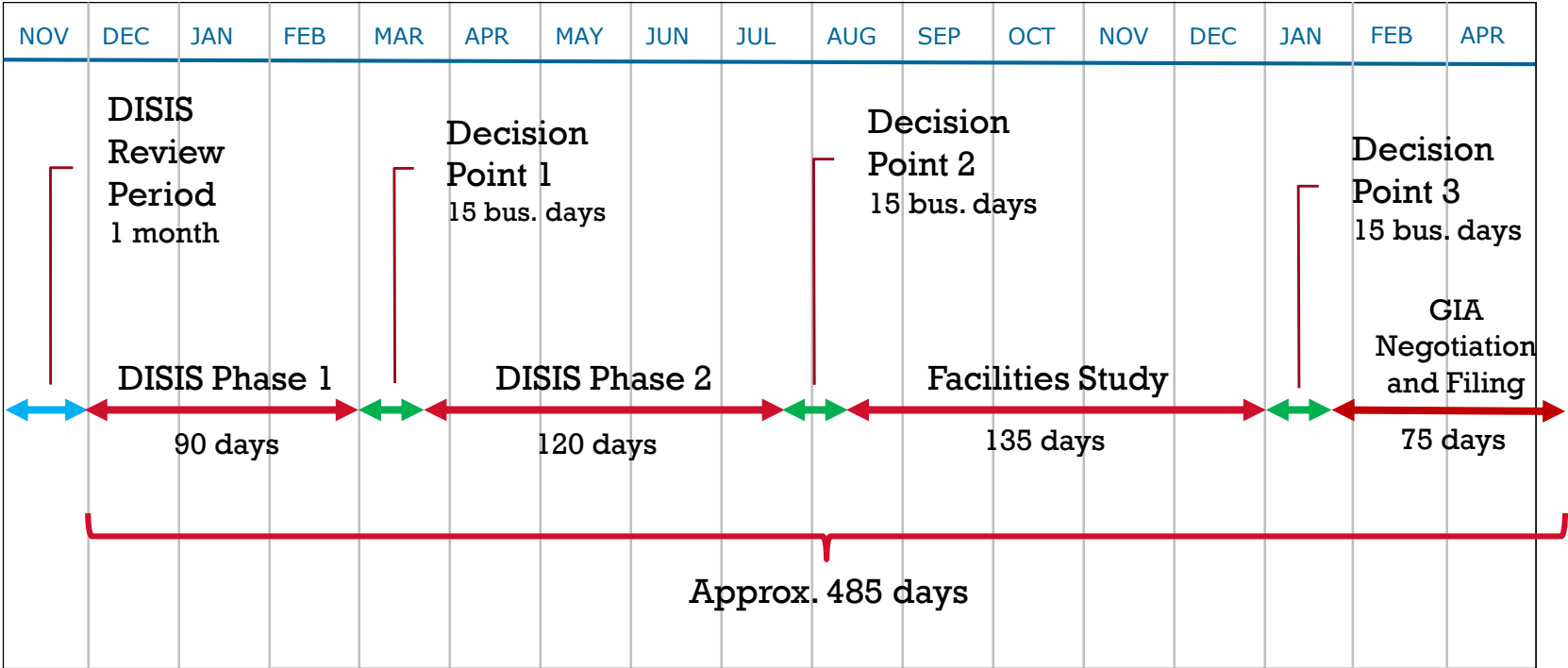
Penalty-Free Withdrawal

- If estimated costs increase between stages, the customer can withdraw without risking financial security if the increase meets these requirements
 - Costs of Stage 2 compared with Stage 1 increase by
 - 25% or greater, and
 - \$10,000/MW or greater
 - Costs of Stage 3, or any Stage 3 revision, compared with Stage 2 increase by
 - 35% or greater, and
 - \$15,000/MW or greater
- Known affected-system upgrade costs are included for purposes of determining if penalty-free withdrawal applies.

Security Refund



GI Process Timeline



Transition

On the effective date of the new process:

- **Feasibility and PISIS Queues**
 - Studies that are in progress will continue to completion under the legacy process
 - Requests in studies that have not begun will be terminated and can be entered in the open season for Stage 1
- **DISIS Queue**
 - The cluster study currently under way will continue to completion under the legacy process, then enter Decision Point 1 of the new process
 - Clusters that have been queued, but have not commenced, will enter Stage 1 by satisfying the Stage 1 requirements within 20 Business Days after the previously-queued Stage 2 DISIS study is posted
- **Facilities Study Queue**
 - Requests having signed Facilities Study Agreements will continue under the legacy process to a signed GIA
- Open Seasons will be paired until the last DISIS cluster posts its Stage 1 report. Paired open season requests will comprise one Stage 1 study and will have the same queue priority.

Stakeholder Approval Process

- GIITF developed a whitepaper describing the three-stage process for MOPC
- MOPC approved the GIITF whitepaper at the April 2018 meeting
- Tariff changes were drafted in RR335 and were approved by
 - Regional Tariff Working Group on Nov. 29, 2018
 - Reliability Coordination Working Group on Dec. 12, 2018
 - Transmission Working Group on Dec. 19, 2018
 - MOPC on January 15, 2019 (unanimously)

Questions?

If you have any questions, please submit a ticket on [RMS](#).