Transition Cycle 1, Phase 1
System Impact Study (SIS) Reports

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Interconnection Analysis

Transition Cycle #1 Phase 1 SIS Reports

Report Type: PJM will be providing two types of SIS reports:

- Summary Report for entire TC1 Cycle
- Individual SIS Report per TC1 Project

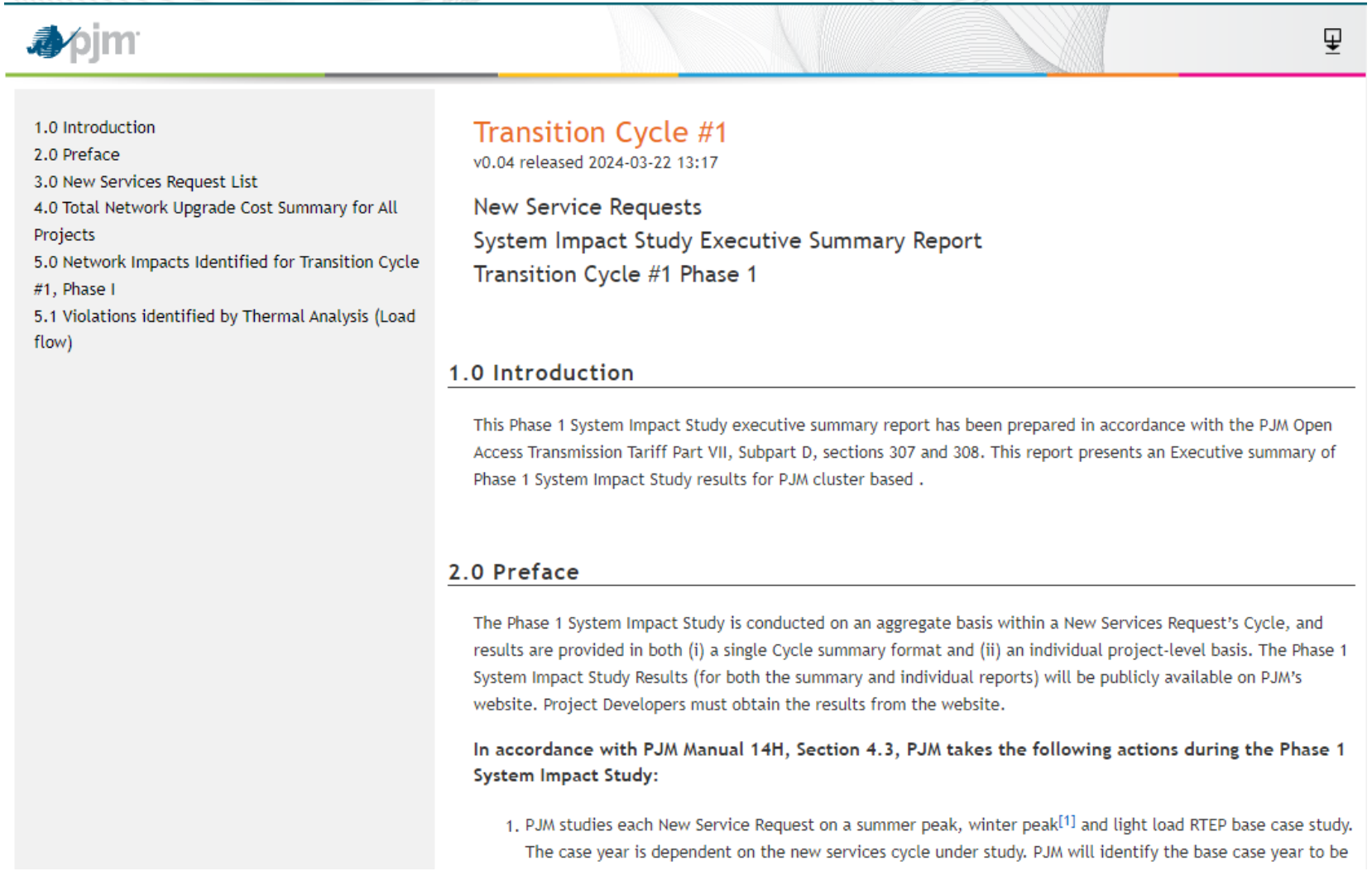
Schedule: Anticipated TC1/PH1 SIS report delivery: May 20, 2024

Website Access: SIS Reports will be made available on PJM.com for Project Developers to access.

Transition Cycle #1 Phase 1 Executive Summary Report

TC1/PH1 Summary Report includes:

- List of all New Service Requests including high level project details
- Total Network Upgrade Cost Summary for all New Service Requests
- Network Impacts identified from the study
- Will be posted on pjm.com



1.0 Introduction
2.0 Preface
3.0 New Services Request List
4.0 Total Network Upgrade Cost Summary for All Projects
5.0 Network Impacts Identified for Transition Cycle #1, Phase I
5.1 Violations identified by Thermal Analysis (Load flow)

Transition Cycle #1

v0.04 released 2024-03-22 13:17

New Service Requests
System Impact Study Executive Summary Report
Transition Cycle #1 Phase 1

1.0 Introduction

This Phase 1 System Impact Study executive summary report has been prepared in accordance with the PJM Open Access Transmission Tariff Part VII, Subpart D, sections 307 and 308. This report presents an Executive summary of Phase 1 System Impact Study results for PJM cluster based .

2.0 Preface

The Phase 1 System Impact Study is conducted on an aggregate basis within a New Services Request's Cycle, and results are provided in both (i) a single Cycle summary format and (ii) an individual project-level basis. The Phase 1 System Impact Study Results (for both the summary and individual reports) will be publicly available on PJM's website. Project Developers must obtain the results from the website.

In accordance with PJM Manual 14H, Section 4.3, PJM takes the following actions during the Phase 1 System Impact Study:

1. PJM studies each New Service Request on a summer peak, winter peak[1] and light load RTEP base case study. The case year is dependent on the new services cycle under study. PJM will identify the base case year to be

Transition Cycle #1 Phase 1 SIS Study Report

Individual Phase 1 SIS includes:

- Detailed information for a single New Service Request
- Breakdown of Transmission Owner scope of work and costs
- Network Impacts: Analysis Results/breakdown of all overloaded flowgates
- Required Network Upgrades including costs and scope of work.
- Will be posted on pjm.com

Introduction
Preface
General
Point of Interconnection
Cost Summary
Transmission Owner Scope of Work
Transmission Owner Analysis
Developer Requirements
Revenue Metering and SCADA Requirements
Summer Peak Analysis
Summer Potential Congestion due to Local Energy Deliverability
Winter Peak Analysis
Winter Potential Congestion due to Local Energy Deliverability
Light Load Analysis
Light Load Potential Congestion due to Local Energy Deliverability
Short Circuit Analysis
Stability Analysis
Reactive Power Analysis
Steady-State Voltage Analysis
New Service Request Dependencies
Affected Systems
System Reinforcements
Attachments

XYZ-123 Phase 1 Study Report

v0.02 released 2024-04-15 11:46

Boardwalk 230 kV
255.5 MW Capacity / 850.0 MW Energy

Introduction

This Phase 1 System Impact Study Report (PH1) has been prepared in accordance with the PJM Open Access Transmission Tariff, Part VII, Subpart D, sections 307 and 308 for Transition Cycle #1 projects. The Project Developer/Eligible Customer (developer) is Virginia Electric & Power Company , and the Transmission Provider (TP) is PJM Interconnection, LLC (PJM). The interconnected Transmission Owner (TO) is Virginia Electric and Power Company.

Preface

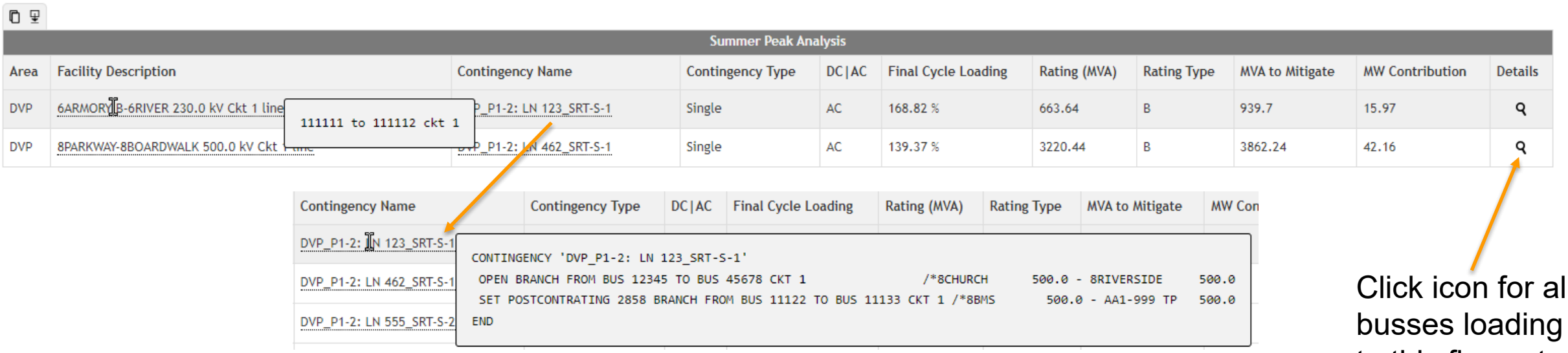
The Phase I System Impact Study is conducted on an aggregate basis within a New Services Request's Cycle, and results are provided in both (i) a single Cycle summary format and (ii) an individual project-level basis. The Phase I System Impact Study Results (for both the summary and individual reports) will be publicly available on PJM's website. Developers must obtain the results from the website.

In accordance with PJM Manual 14H, Section 4.3, PJM takes the following actions during the Phase I System Impact Study:

1. PJM studies each New Service Request on a summer peak, winter peak[1] and light load RTEP base case

Analysis Sections

Copy Or Export CSV



Click icon for all busses loading to this flowgate

- The analysis sections show information about overloaded flowgates
- Hover over facility description to get bus numbers

New Service Request Dependencies

New Service Request Dependencies

The New Service Request projects below are listed in one or more dispatch for the overloads identified in your report. These projects contribute to the loading of the overloaded facilities identified in your report. The percent overload of a facility and cost allocation you may have towards a particular reinforcement could vary depending on the action of other Cycle projects. The status of each project at the time of the analysis is presented in the table. This list may change as other cycle projects withdraw or modify their requests. This table is valid for load flow analyses only.

New Service Requests Dependencies		
Project ID	Project Name	Status
XYZ-111	Boardwalk 115kV	In Service
XYZ-065	Parkplace 230kV	In Service

- This section contains a list of other New Service Requests which share in the loading of an overloaded facility in your report
- Changes made to these projects could impact your load flow analysis results and / or cost allocation for a particular network upgrade reinforcement.

System Reinforcements Sections

System Reinforcement			
RTEP ID	Title	Total Cost	Time Estimate
n55512	Add additional 138/115 kV transformer at American Legion substation	$6,000,000	16 - 18 Months

Contributor

Description: Add additional 138/115 kV transformer at American Legion substation

Flowgates Addressed by this Reinforcement	
Facility	Contingency
3LEGION-4LEGION 115.0/138.0 kV Ckt 1 transformer	(Any)
3LEGION-4LEGION 115.0/138.0 kV Ckt 2 transformer	(Any)

New Ratings			
Facility	Rating Set	Rating Type	Rating Value
3LEGION-4LEGION 115.0/138.0 kV Ckt 1 transformer	(All)	A	140 MVA
3LEGION-4LEGION 115.0/138.0 kV Ckt 1 transformer	(All)	B	140.8 MVA
3LEGION-4LEGION 115.0/138.0 kV Ckt 1 transformer	(All)	C	146 MVA

Cost Allocation			
Project	MW Impact	Percent Allocation	Allocated Cost ($USD)
XYY-123	15.6 MW	9.5%	$569,356
XYY-124	15.6 MW	9.5%	$569,722
XYZ-123	17.2 MW	10.5%	$627,499
XYZ-124	17.2 MW	10.5%	$627,499
XYZ-125	17.2 MW	10.5%	$627,499
XYZ-403	10.6 MW	6.4%	$386,153
XYZ-404	10.6 MW	6.4%	$386,153
XYZ-539	60.3 MW	36.8%	$2,206,119

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