# RR684 – CONSOLIDATED PLANNING PROCESS (CPP) TARIFF APPROVAL

SUNNY RAHEEM, PE
DIRECTOR, SYSTEM PLANNING

# Problem Statement

GI and ITP are handled separately, resulting separate cost allocation, process redundancies, and missed opportunities for holistic transmission planning.

# Draft MOPC Motion

CPPTF recommends the MOPC approve RR684 Consolidated Planning Process (CPP) Tariff as presented.

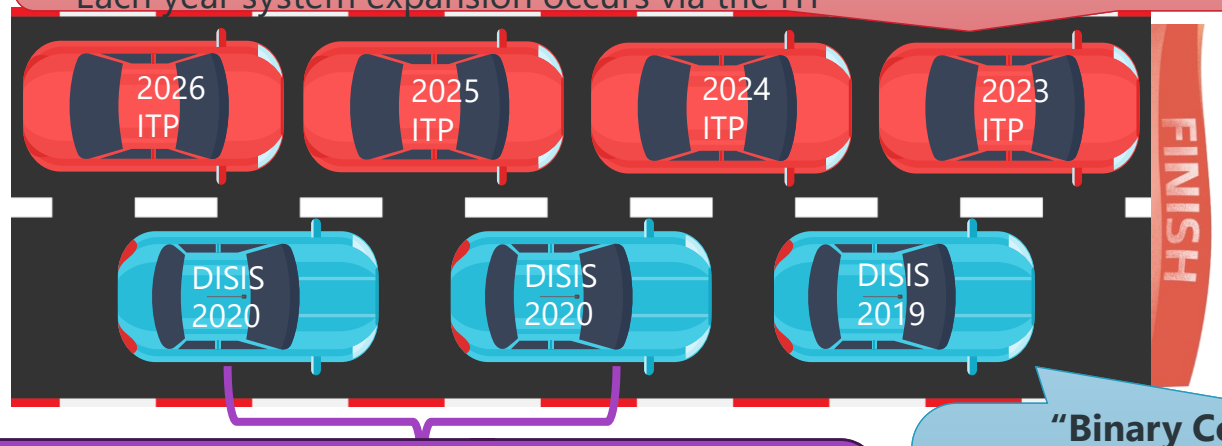
GI: Generator Interconnection, ITP: Integrated Transmission Plan, 20-Year – 20 Year Assessment

# Problem Example

In a race to the finish, the first car to cross the line funds the upgrade—or the 'highway'—regardless of who uses it afterward

## GI Challenges

- At least 92% of system upgrades are funded by load (Source: 2025 SPP Transmission Expansion Plan (STEP) Report)
- Each year system expansion occurs via the ITP



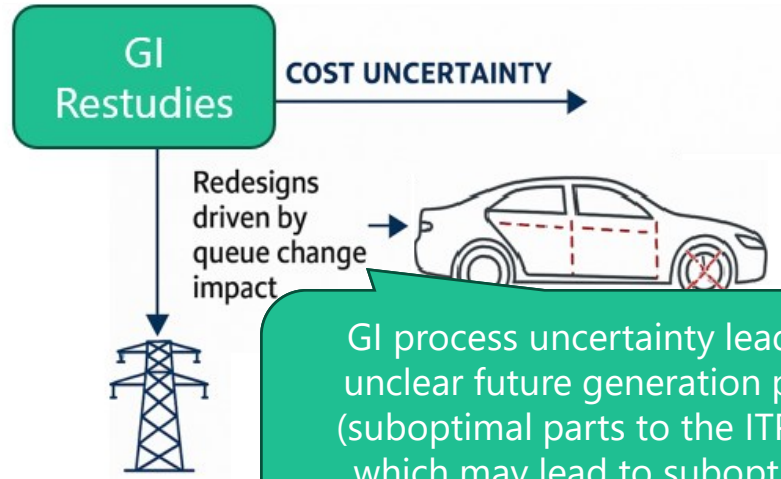

**"Upgrade Steering Risk"**

- Withdrawals across queues can results in redirecting upgrade costs to neighboring or later requests, introducing planning uncertainty.

**"Binary Cost Assignment Risk"**

- Binary costs assigned based on when the GI car finished compared to other cars.
- **2–4%** of system upgrades (excluding the interconnection substation) are paid for through the GI process.

## Downstream ITP Challenges




GI process uncertainty leads to unclear future generation plans (suboptimal parts to the ITP car) which may lead to suboptimal transmission recommendations

Between the two study processes, the costs are assigned based on a **single snapshot in time**, which may **miss broader system benefits**—leading to **incomplete cost responsibility.**

# Our Approach

## The Solution

Enabling faster resource integration, shared costs based on benefits, and more efficient, reliable grid development.

## Value Proposition

Enabling faster resource integration, shared costs based on benefits, and more efficient, reliable and affordable grid development.

## Solution Drivers

**"Optimal Car Design"**

**Unified and Forward-Looking Planning Framework**

**Benefit-Based Cost Allocation**

# STAKEHOLDER APPROACH

200+ discussions across 8 stakeholder groups

30 significant policies approved with average 99%

## 2022 - 2023

- SCRIPT ➡ CPPTF
- CPP Phase 1 assessment inclusion and transition plan

## 2024

- Technical and cost allocation framework and direction

## 2025

- Finalize policies and tariff revisions

## 2026 - 2027

- Effective date and implementation
- Finalize business practices

# STRATEGIC IMPLICATIONS

CPP transitions from the "**request-then-analysis**" framework to a **"ready-to-go"**, where the system needs and costs are identified **before** the generator asks to connect.

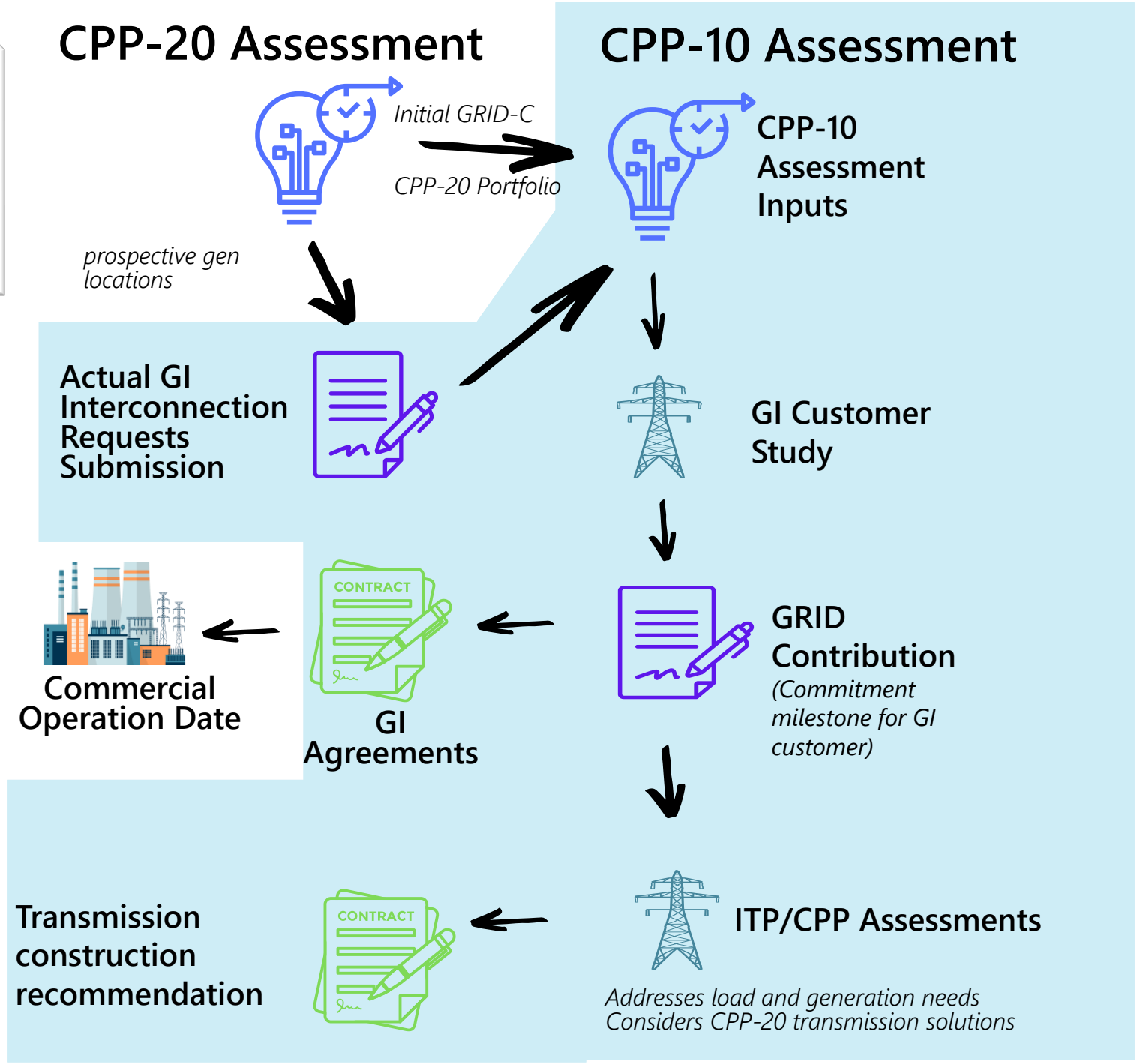
| Mechanisms | Role in the Unified Planning Framework | How It Helps Accelerating Generator Connections |
|---|---|---|
| **Unified and Forward-Looking Planning Framework** | Integrates generator interconnection, load growth, public policy, reliability, and economic, into a **single coordinated study cycle**. | Eliminates silos between planning and GI<br>Upgrades are studied once and available for multiple needs. |
| | Uses **multi-year projections** of generation, load, reliability, economic, and policy to proactively identify system needs **before interconnection requests** come in. | Enables infrastructure to be ready to go for GI requests, cutting years off traditional timelines. |
| **Benefit-Based Cost Allocation** | Assigns generator interconnection costs based on **benefit from the system and upgrades** rather than using binary (single snapshot) cost assignment. | Reduces cost disputes, improves financing clarity, and accelerates GI and regional planning decision-making. |

# GRID CONTRIBUTION FRAMEWORK

*Transforming the generator cost assignment from project-centric to support (general contribution) for regional transmission portfolios.*

## GRID-C Key Points

- The initial GRID-C is based on the **CPP-20** (portfolio, future generator MWs)
- **GRID-C cost assigned** ($/MW) to **actual GI customers** within the **CPP-10** and **credits load**
- GRID-C is used to **fund more holistic transmission solutions** in the **CPP-10**



Unified and Forward-Looking Planning Framework

# STRATEGIC IMPLICATIONS

## Three-year CPP Planning Cycle (Att. AY Section I-IV)

### CPP-20: Long-term 20-year assessment (once per cycle)

**CPP-20 Focus:**

- Foundation for GRID Contribution rates and establishes the multi-future transmission vision for up to 20 years out.

### CPP-10: Ten-year annual study (three times per cycle)

**CPP-10 Focus:**

- **Key Phases:** Generator Impact (ICS) Study → GI Decision Point → Regional Transmission Assessment (like the ITP)
- **Regional Transmission Assessment:** Recommends transmission for construction to meet load and generation needs

### Aligned Technical Assumptions

- Consistent assessment approaches including models, dispatch assumptions, and analysis.
- Consistent inputs and data sources such as IRPs, GI data, fuel trends, retirements, and policy goals.

Unified and Forward-Looking Planning Framework

# STRATEGIC IMPLICATIONS

## GI Assessment (Att. AY Section V)

### Generator Interconnection Procedure Changes

- Interconnection requests submitted via new **ICS Queue Cluster Window and studied in one single phase (ICS)** within the **CPP-10**.
- If multiple customers choose the same Planned Location, SPP will pro-rate MWs to match the planned volume.
  - MWs beyond the planned capacity may result in additional directly assigned costs.
- Two location types:

The CPP Transition Study includes several hundred planned sites

  - **Planned Locations:** Point of Interconnection costs + GRID-C if capacity remains + affected system costs
  - **Unplanned Locations:** Point of Interconnection costs + GRID-C + possible additional SPP directly assigned costs + affected system costs

### GI Customer Readiness

- **High degree of commitment**, including:
  - **Continuing the current requirements**: application fees, study deposits, site control and financial security, technical data, and milestone evidence
  - **Increased in staged financial commitments:** at initial submission (up 20%) and GRID-C Decision Point (up to 100%)—to ensure serious participation and alignment with planned transmission upgrades
- **Late withdrawal** is subject to expanded harm test for material timing or costs impacts on the transmission system (including transmission decisions) or to other GI projects

Benefit-Based Cost Allocation

# STRATEGIC IMPLICATIONS

## Cost Allocation GRID-C – Att. AY Section IV.3, Att. J, Att. L, Att. Z, and Schedule 11

### Purpose & Applicability

- **Purpose**: Offset the cost of transmission upgrades that enable generation interconnection, reduce congestion and curtailment, and provide shared system benefits.
- **Who Pays**: GI customers requesting ERIS and/or NRIS by the GRID-C Decision Point.

### Structure & Rate Calculation

- **Four Types**:
  - **ERIS** Region-wide & Subregional
  - **NRIS** Region-wide & Subregional (additional for NRIS customers)
- **GRID-C Formula Inputs**:
  - **CPP-20 portfolio costs, transmission utilization factor, future generation adjustment**
  - **Projected Generation MW growth** (ERIS = nameplate, NRIS = accredited)
- **GRID-C are set:**
  - **CPP ongoing:** before ICS Open Window closure based on 20-year outlook.
  - **CPP transitional period:** before GRID-C decision point.

**GRID-C Voltage Basis**

- **300kV:** 100% Region-wide
- **100–300kV**: 33% Region-wide / 67% Subregional
- **<100kV:** Not included (Directly Assigned)

Benefit-Based Cost Allocation

# STRATEGIC IMPLICATIONS

## Cost Allocation GRID-C – Att. AY Section IV.3, Att. J, Att. L, Att. Z, and Schedule 11

### Payment Term

**Why GRID-C Timing Matters?**
- **Demonstrates commitment** to move forward with early payments
- **Supports tax credit eligibility** by aligning upfront costs with COD
- **Helps stabilize** transmission rates through steady payments

**ERIS GRID Contribution:**

- Monthly payments **begin within 30 days of the CPP GIA Effective Date** and **ends by the expected Generator Commercial Operation Date (COD)**.

**NRIS GRID Contribution:**

**What is the value?** Creates a path to Base Plan Funding, consistent with the long-term transmission service process.

- Monthly payments begin **no later than actual COD**
- Remaining **NRIS Financial Securities may be released if NRIS is designated to load** (in the same Deliverability Area).
  - Subject to base plan funding provisions up to the safe harbor provisions

### Revenue Use

- **Revenue Distribution**: Collected GRID-C funds go back to load-serving entities **as Schedule 11 credits to firm service charges** which enables shared cost recovery.

# STRATEGIC IMPLICATIONS – INVESTMENT ANALYSIS

GRID-C contributions may be 2–3 times higher than previously assigned ERIS upgrade costs — but the faster timeline, cost certainty, and reduced risk deliver a strong return on investment.

| | Current State | With CPP | Estimated Savings |
|---|---|---|---|
| **Time to GIA** | ~18 months | ~7 months for Planned Sites | Up to 1 year faster GIA + greater cost certainty |
| **Time to Commercial Ops** | Delays from unplanned restudies; longer lead time | 7-month lead time supports earlier COD | Millions saved from earlier generation revenue and tax credit access |
| **Restudy Costs** | ~$9M from 18 restudies (4 yrs) | At least 75% fewer restudies | At least $6M saved every 4 years ($1.5M/year) |
| **Study Costs** | ~$6M per DISIS Phase 1 & 2 | CPP cost-sharing between load & generation | SPP admin cost offset through shared study funding |
| **Base Plan Cost Avoidance** | Duplicate EHV builds possible, if GI customers commit to current costs | CPP coordinates ITP & GI plans | $100M+ saved per avoided overlap of major EHV projects |

# POLICY IMPLICATIONS ANALYSIS

## Rejection Risks

- **Reliability Risk**: Rapid load growth could outpace infrastructure while GI restudies delay progress
- **Financial Risk**: Lack of coordinated cost-sharing leads to questioning inequitable recovery and deters investment
- **Planning Inefficiencies**: Multiple parallel processes create timeline misalignment and possibly conflicting results for transmission capacity
- **Market Uncertainty**: Unclear upgrade costs delay projects and reduce investor confidence

## Approval Benefits

- **Load Serving Entities** gain a new revenue stream and a more proactive role in planning.
- **Generation Developers** benefit from faster timelines and greater cost certainty.
- **End Users** avoid rate spikes by reducing piecemeal transmission development.
- **Regionally**, CPP improves reliability, supports multi-driver solutions, and increases planning efficiency.

# ✅ Stakeholder Endorsement

| Group | Vote Outcome |
|---|---|
| **CPPTF** | Unanimously |
| **CAWG** | Unanimously with 1 abstention |
| **TWG** | Unanimously with 2 abstentions |
| **ESWG** | Unanimously with 1 abstention |
| **RTWG** | Unanimously with 1 abstention |

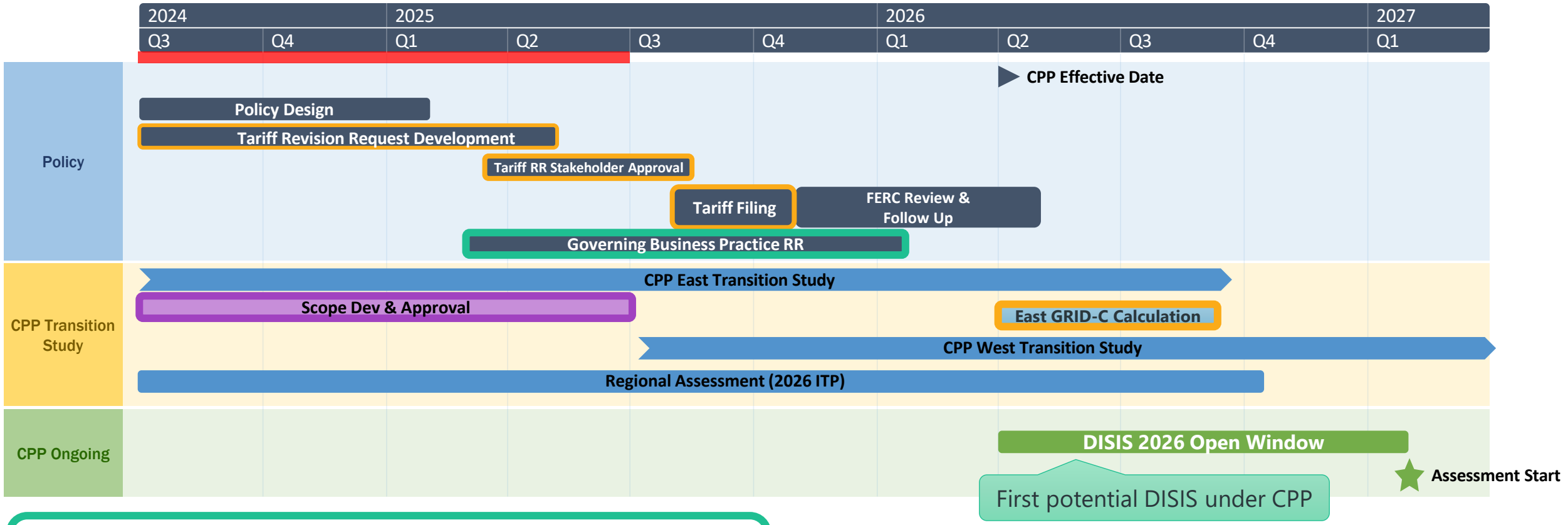
## 🛠️ Key Implementation Considerations

- **Cost Allocation Complexity**
  - Differences between GRID-C forecasts and actual costs determined in the 2026 ITP
- **Tariff & Business Practice Integration**
  - Aligning responsibilities and content between the Tariff and the CPP Manual (CPP Manual)
- **Order 1000 Coordination**
  - Ensuring CPP upgrades are compatible with FERC Order 1000 competitive processes (SPC July Topic)
  - Generator need dates now a factor in competitive project need date timing (CPP Manual)

**CPP RR changes during the approval process:**

- Minor **clean-up edits** for clarity
- **Open Window and Customer Discussion Point adjustments to the CPP-10 schedule** for ongoing implementation
- **Clarification of GRID-C's purpose** and how it supports planning and cost recovery

# ANTICIPATED CPP POLICY SCHEDULE




**CPP Manual and GI Manual Approvals**
- January 2026 MOPC

**2026 ITP & CPP Transition Study Scope Approvals**
- January 2025 Phase: Futures – Model Assumptions
- July 2025 Phase: Transmission Needs – Final Report

**CPP Tariff Revision Request** will be filed with the GRID Contribution (GRID-C) methodology before calculation of the actual GRID-C amounts. CPPTF has forecasted the anticipated GRID-C to assess commercial viability for generators.

# MOTION SLIDE

The Consolidated Planning Process Task Force (CPPTF) recommends MOPC:

Approve Revision Request RR684 Consolidated Planning Process (CPP) Tariff Changes as presented.

# APPENDICES

# GRID-C AND SCHEDULE 11 SUBREGIONAL ALIGNMENT

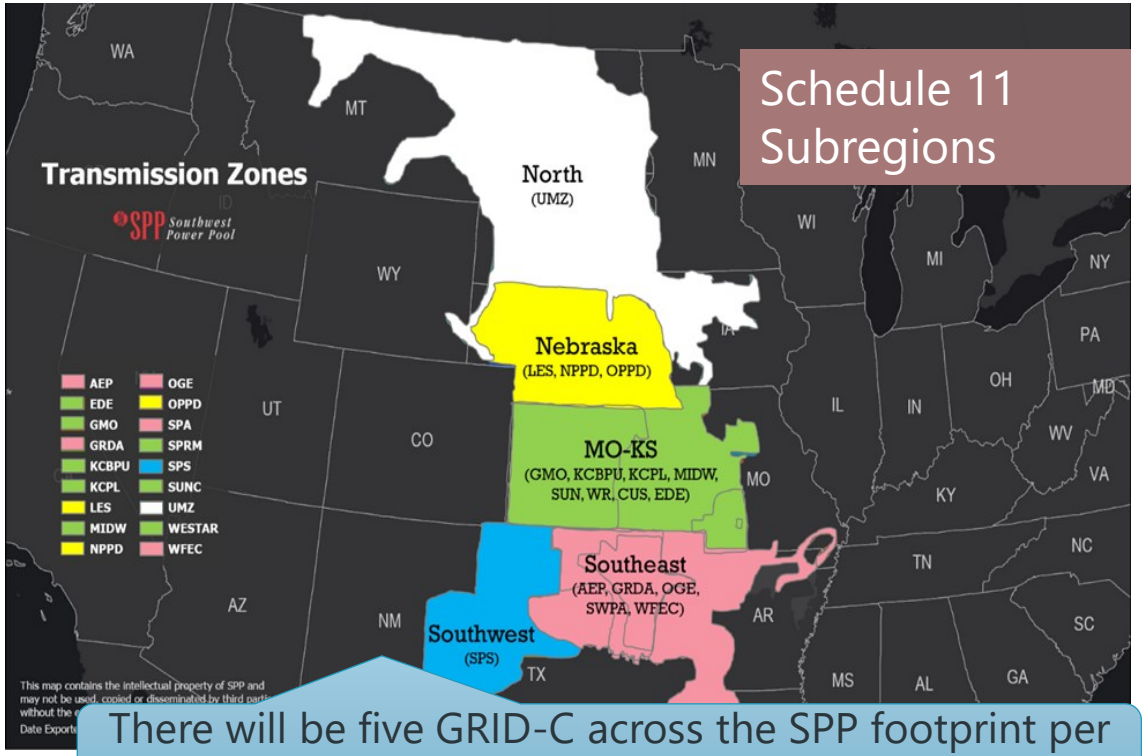
## GRID-C

### ERIS GRID-C

- EHV Contribution
- HV Contribution

### NRIS GRID-C

- EHV Contribution
- HV Contribution




There will be five GRID-C across the SPP footprint per service type

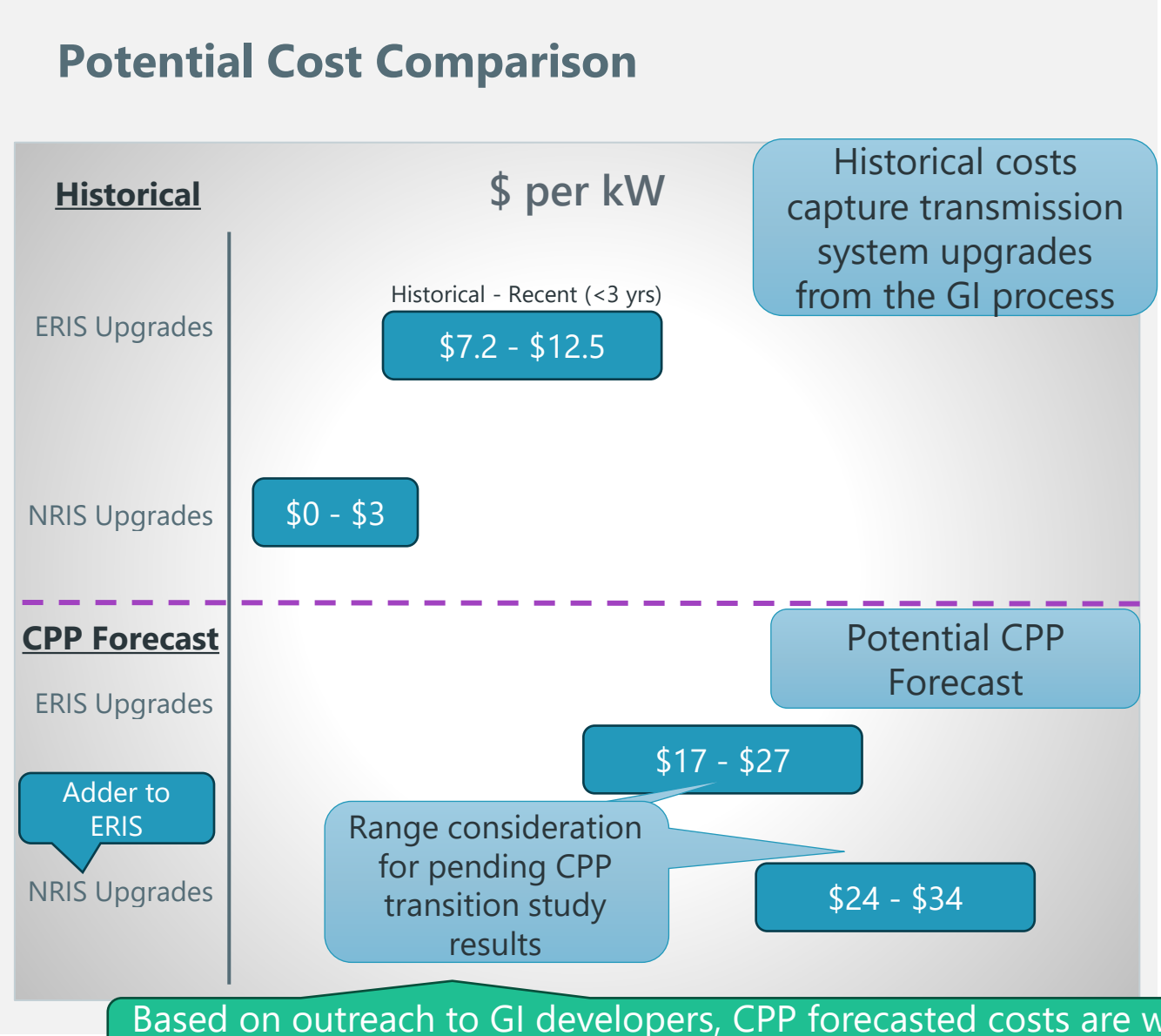
**EHV (300kV+)**

- All generators pay a portion of EHV upgrades similar to all load pays for EHV upgrades

**HV (100-300kV)**

- HV upgrades located in the HITT C1 subregions will be considered for HV transmission costs for generators located in the subregion

# CPP FORECASTED COST COMPARISON




## 2025 STEP

- For historical system capacity upgrades, GI has funded a total of approximately $800 million across the 67 GW.

## CPP Forecast *(what may come out of the CPP transition study)*

- Anticipates possible cost ranges expected out of the CPP transition study which will complete by end of 2026.
- For comparison purposes, the midpoint ($22/kW) of ERIS contribution and 67 GW of generation could have totaled to ~$1.5 billion.
  - This amount could contribute to CPP-10 portfolios.

# GRID-C CALCULATION APPROACH

**Technical Inputs** → *Determine ERIS GRID-C* → *Determine NRIS+ GRID-C*

**Simulation, model, and system assumptions**

Hourly market economic model(ITP MEM) simulations in the 20th year

Existing and future generation, load and transmission

**Initial Transmission Usage (Benefit)**

Future CPP Generators (Prospective CPP Gens) usage on:

- Extra High Voltage (EHV) and
- High Voltage (HV) system

**Reasoning**

- **Hourly market economic model simulation in the 20th year:**
  - Provides a market-like technical simulation
  - Volume based calculation to stabilize the GRID-C
  - Includes hours of energy and capacity usage
- **Existing and Future Transmission:**
  - Provides a comprehensive measure of benefit (usage of the system) for future generators.
  - GRID contributions are to portfolios over time
- **Future CPP Generators**
  - Part of the CPP-20 and CPP-10 resource plans and are planned locations

# CPP – GI DEVELOPER PERSPECTIVE

## GI Developer Involvement

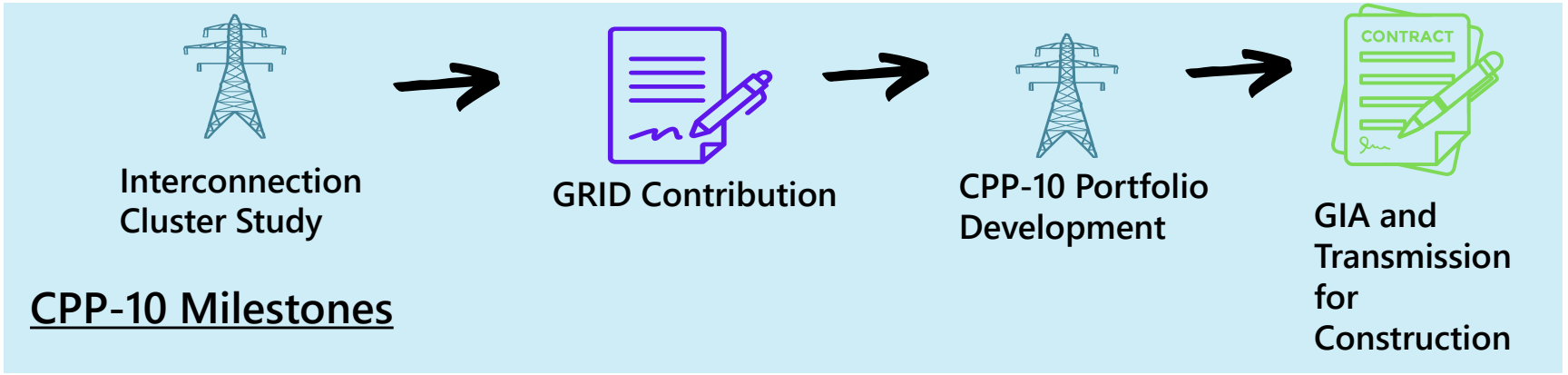
**Supports Generation Planning Milestones**
- Enables **scoping**, **expansion**, and **siting** efforts
- Helps identify and confirm **Planned Generator Locations**

**Submits Actual GI Requests**
- At **Planned** or **Unplanned** locations
- With **known GRID-C** requirements

**Receives Cost Determinations For:**
- Point of Interconnection upgrades
- Directly assigned upgrades (Unplanned & Suboptimal locations)
- Affected system upgrades

**Firm Commitment Process**
- Generator **commits to proceed or withdraw**
- If proceeding, moves to **final facilities studies** and **GIA negotiation**

**Negotiating Generator Interconnection Agreement (GIA)**
- Finalizes terms and responsibilities
- Establishes timeline and financial payment obligations

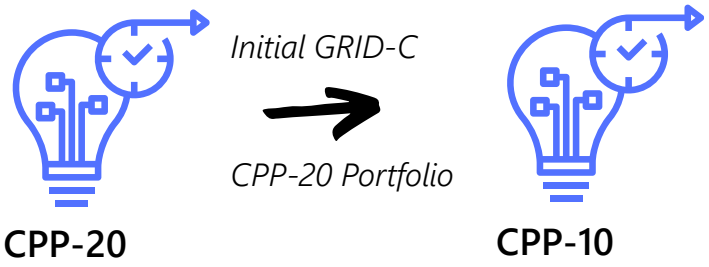
# CPP – ITP STAKEHOLDER PERSPECTIVE

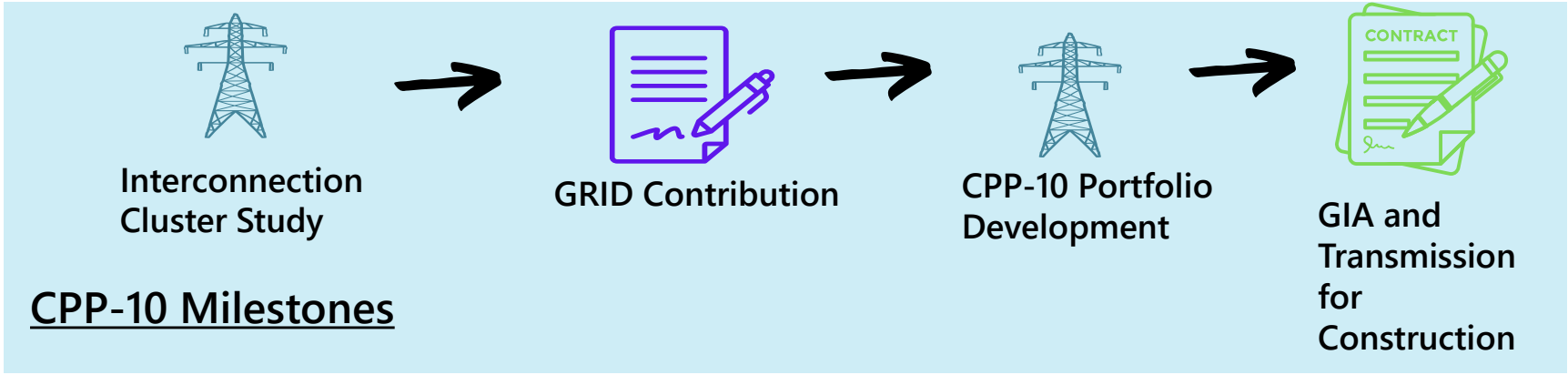
## ITP Stakeholder Involvement

**Supports assessments from start to finish**
- Business as usual plus **Transmission Owner (TO)/Load Responsible Entity (LRE)** provides input on generation site feasibility

**Supports assessment from start to finish**
- Plus reviews requests and coordinates GI impact assessments and facility analysis for planned and unplanned locations.

**Continued Support for CPP-10**
- Aligns with ITP processes
- Recognizes Generator Interconnection (GI) needs in transmission justification and project selection



# GI SUBMISSION INTO THE CPP OPEN WINDOW

- STUDY AGREEMENT
- ERIS OR NRIS SERVICE TYPE
- POINT OF INTERCONNECTION (PLANNED OR UNPLANNED)
- SITE CONTROL OF GENERATING FACILITY AND 50% GEN TIE LINE
- TECHNICAL DATA AND MODELS
- DEPOSITS AND FINANCIAL SECURITIES

ERIS – Energy Resource Interconnection Service
NRIS – Network Resource Interconnection Service

# PLANNED INTERCONNECTION LOCATIONS

Attachment AY definition: *Locations identified as part of the 20-year planning horizon CPP Planning Cycle.*

Transmission will be planned for prospective interconnection customers (i.e., generators included in the resource expansion and siting plan).

Location and associated maximum interconnection capacity will be defined during the first study of each CPP cycle.

Subject to GRID-C, Transmission Owner Interconnection Facilities (TOIF), and Affected Systems upgrades, if assigned.

# UNPLANNED INTERCONNECTION LOCATIONS

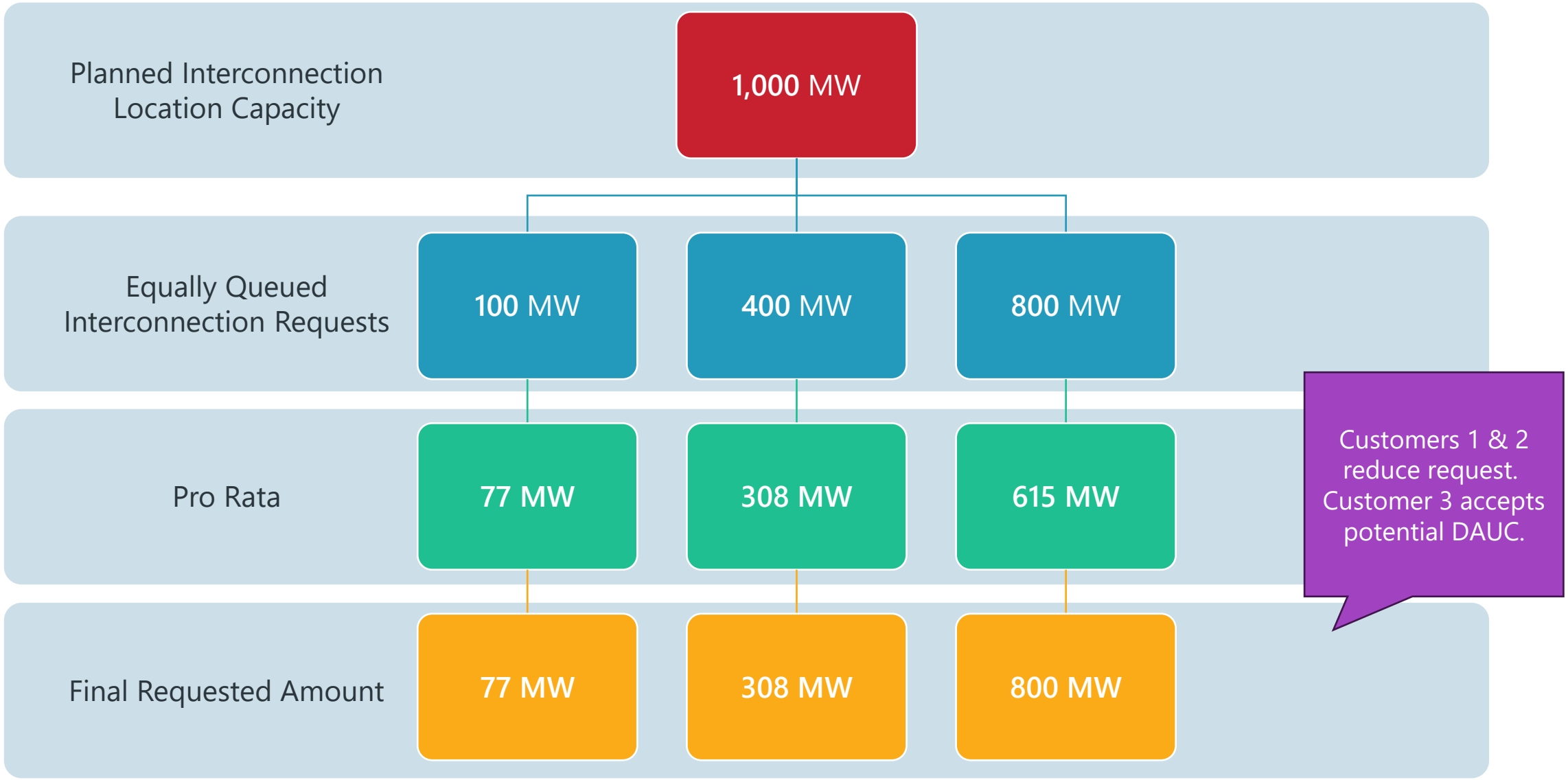
Attachment AY definition: *Location which is not at a Planned Interconnection Location, or the planned capacity at a Planned Interconnection Location has been exceeded.*

If Planned Interconnection Locations become over-subscribed, Interconnection Customers will have the opportunity to reduce capacity of the Interconnection Request by the percentage of over-subscription.

If the capacity remains over-subscribed, any Interconnection Requests that did not reduce capacity may be directly assigned additional Network Upgrades or Shared Network Upgrades.

Subject to GRID-C, Transmission Owner Interconnection Facilities (TOIF), Network Upgrades, Shared Network Upgrades, and Affected Systems upgrades, if assigned.

# INTRA-QUEUE PRIORITY EXAMPLE



# GI CUSTOMER READINESS SUMMARY

| Stage | Requirement |
| --- | --- |
| **Initial Request Submission** | - Executed CPP Study Agreement - $10,000 Application Fee - Study Deposit: $35,000 + $1,000/MW for ≤80 MW |
| | - Site Control for 100% of facility OR affidavit + $10k/MW (min $500k / max $2M) |
| | - 50% tie-line site control OR $80k/line-mile financial security |
| | - Technical info (Appendix 7, Att. AY) - **Financial Security One**: greater of: • 20% of GRID Contribution • $8,000/MW of ERIS/NRIS MIC |
| **Decision Point (Post-ICS)** | - Written intent to proceed or withdraw - Confirm POI, capacity, COD, limited ops intent |
| | - Show milestone progress (e.g., contracts, permits, state plan inclusion) |
| | - **Financial Security Two**: • 100% of GRID Contribution (minus FS1) • 20% of Directly Assigned Upgrade Cost (minus FS1) |

# DECISION POINT

One Decision Point

Similar to Decision Point 2

Proceed or Withdraw

## Accepted Changes:

- 10% Capacity Reduction
- Permissible Technological Advancements

## Must Provide:

- Continued site control of Generating Facility
- 75% site control of gen tie line
- Development Milestone

## Financial Securities (FS):

- GRID FS – 100% of the GRID-Contribution, **plus**
- DAUC FS – 20% of the total DAUC
  - (less the amount paid at FS1)

# PATHS TO CPP GIA