



Joint and Common Market

# **FREEZE DATE ALTERNATIVES**



# Background

- Reference date of April 1, 2004, known as “Freeze Date”, is used as mechanism to determine firm rights on flowgates based on pre-market firm flows.
- As we move further away from the current Freeze Date (>15 years), issues with the current date have become prominent.
- RTOs and their stakeholders agreed that there is a need to work on Freeze Date alternatives.

# Phase II – Freeze Date Solution Update

FFE

- Markets are close to finalizing FFE solution
- Identified few in-appropriate scenarios in current prevailing bucket 4 calculation and CMPWG developed solution to address the issue
- Allocation priority structure under discussion
- SPP Bucket 4 (NITS TSRs)

FFL

- Non-Markets have concerns with phase II proposal
- Concerns with including post Freeze Date network resources & inter firm TSRs in bucket 2
- CMPWG exploring alternative solutions to address Non-Markets concerns

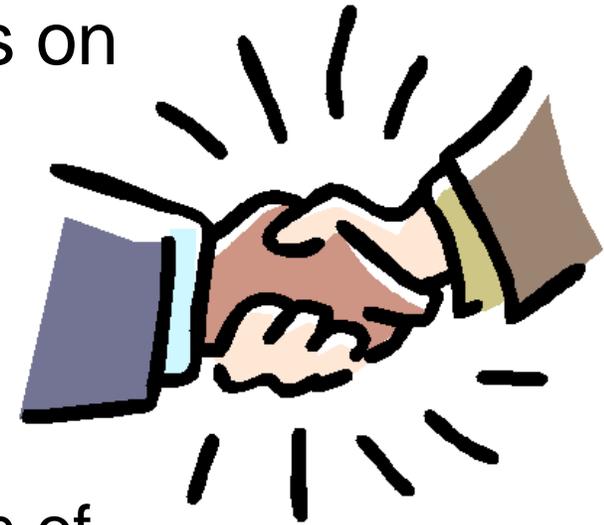
CMPWG  
Priority

- Finalize FFE solution
- CMPWG/CMPC vote on FFE full solution
- Post white paper for stakeholders once the FFE solution is finalized (Q3 2019)

# CMPC Motion for Path Forward

Approved motion to move forward with a market only FFE solution. CMPWG will also continue discussions on a FFL solution. This includes the following:

- Finalize Whitepaper for FFE
- Develop final CMP and JOA changes for FFE
- Engage OATI for cost and time estimates
- Communication to stakeholders
- Determine implementation and filing date after return of OATI estimates
  - It is expected to be known by this point whether a potential FFL solution is agreeable to all parties and can be incorporated with FFE solution



# How FFE and FFL is Used

## FFE- Firm Flow Entitlement (Net)

- Market to Market Real-time congestion payments with market entities; non-owner pays when real time market flow over FFE (MISO/SWPP/PJM)
- Day Ahead Market uses FFEs to determine limits for next operating day
- FTR Auctions uses the limit for flowgate's in yearly and monthly auction process

## FFL-Firm Flow Limit (Directional)

- Sets the Firm and Non-Firm Market Flow limits for markets flows in TLRs process
- Used in sale of Firm Transmission approval process



# Proposed FFE Solution



# Proposed Solution: Allocations of FFE Involves 4 Steps

## Step 1

### Bucket 1

- Active DNR/NRs (2004 and earlier)
- Active Historic TSRs
- LBA Granularity

## Step 2

### Bucket 2

- Active DNR/NRs (Post 2004)
- Active TSRs (Post 2004)
- LBA Granularity
- Priority Rights

## Step 3

### Bucket 3

- Transfers (limited) Excess LBAs serve short LBAs
- LBA Granularity
- Priority Rights
- 8 Year Transition period to retire

## Step 4

### Bucket 4

- Market wide transfers based on planning
- RTO Granularity
- Priority Rights
- Excess to Owner

Total Impact = Bucket 1+ Bucket 2+ Bucket 3 +Prevailing Bucket 4

# Impact Calculation Methodology

Impact calculation refers to the calculation of firm transmission reservation impacts and generation-to-load impacts on flowgates which are then used in determining the allocations on each flowgate

$$\begin{aligned}\text{Total Impact on Flowgate} &= \text{Historic LBA impact} + \text{Prevailing bucket 4 impact} \\ &= (B1+B2+B3) + (PB4) \text{ impact}\end{aligned}$$

- Bucket 1
  - Serve active Freeze Date Inter-BA TSRs
  - Serve LBA Load using Freeze Date network resources
- Bucket 2
  - Serve remaining active Inter-BA TSRs
  - Serve LBA Load using Post Freeze Date network resources
- Bucket 3
  - Excess LBAs serve short LBAs on a pro-rata basis
- Bucket 4
  - Serve RTO Load using RTO Dispatch
  - Bucket 4 prevailing Impact = Bucket 4 RTO Impact - sum of B1, B2, B3 Impact

# Prevailing Bucket 4 for FFE

- The prevailing bucket 4 impacts represent the change or delta impact between historical LBA to RTO dispatch
- Mainly applicable to markets entities (MISO/SWPP/PJM)
- The prevailing bucket 4 calculation differs for year 0, year 4, and year 8 to allow for phase out mechanism of bucket 3

## **PB4 Impacts = Net RTO(B4) - Net LBA(B1+B2+B3) impacts**

- For Year 0 to 4: PB4 impacts are capped to Zero if negative **(Historical LBA impacts higher priority)**
- For Year 4 to 8: PB4 50% counter flows included if negative & Bucket 3 is capped to 50%
- From Year 8 : PB4 100% counter flows included if negative & Bucket 3 step is retired

For year 0 to 4 PB4 counter flows are not included as the bucket 4 counter flows should not reduce the Historic LBA impacts

# Prevailing Bucket 4 calculation

Gen-to-Load and Firm TSR Impacts									
Case	Bucket 4 RTO Dispatch	Bucket 1 to 3 LBA Dispatch	Prevailing Bucket 4 (RTO-LBA)				Final Impacts (LBA+PB4)		
			RTO- LBA	Year 0	Year 4	Year 8	Year 0	Year 4	Year 8
1	60	20	40	40	40	40	60	60	60
2	50	100	-50	0	-25	-50	100	75	50
3	50	-25	75	75	75	75	50	50	50

\* In this example Bucket 1 to 3 LBA impacts are constant for year 0,4,8 for simplicity

PB4 net impacts on a flowgate are capped if the sum of B1, B2, B3, and PB4 impacts exceeds the net RTO Dispatch

# Allocation/Curtailment Priority Rank Proposal for FFE

		B1				B2				B3				Prevailing B4				
Net Impact		Owner	CMP RCF	CMP Non-RCF	Third Party	Owner	CMP RCF	CMP Non-RCF	CMP Third Party	Owner	CMP RCF	CMP Non-RCF	CMP Third Party	Owner	CMP RCF	CMP Non-RCF	CMP Third Party	
>5%	Priority Rank	1				2				3				10	11			
<5%		4		5	N/A	6	7	8	N/A	9	13	14	N/A	12	15	16	N/A	

- Total impact on a flowgate determined by adding up impacts 1 through 16
  - Third Party <5% are not counted towards Total impact (same as today)
- Allocations are only granted for impacts in **blue** (priorities 1,2,3,4,6,7,9,10,11,12)
  - >5% Impacts are allocated to all Entities (FFE only)
  - <5% impacts are only allocated to owner in B3 & B4
  - <5% Impacts in **red** are not allocated but counted towards Total impact
- Over allocation or Excess capacity is determined by comparing Total impacts (1-16) to Rating
- If FG over allocated, then allocations are removed starting at priority 16, until total considered allocations are at rating.
- If FG under allocated, then Excess capacity to owner

# Potential Solution to Non-Markets Concern

Non-Markets have concerns with Phase II proposal

- Concerned with increase in firm limits for markets due to inclusion of Post freeze date network resources & firm inter TSRs in bucket 2; which could lead to more TLR-5 firm curtailment obligations for Non-Markets

CMPWG Potential Solution (**Under discussion**)

- Mechanism to cut a portion of firm market flows before TLR 5 when TLR 3 (Non-Firm Market flow) does not provide adequate relief

# Next Steps

- Market Based Operating Entities to continue to work towards resolution on the FFE path
- Continue to work on FFL solution in parallel with the CMPWG
- Continue planning discussions with neighbors with the goal of improving coordination
- Pending agreement, MISO and PJM will post the White Paper detailing the FFE solution at the November JCM

# Contacts

Solicit stakeholder feedback – send comments to:

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