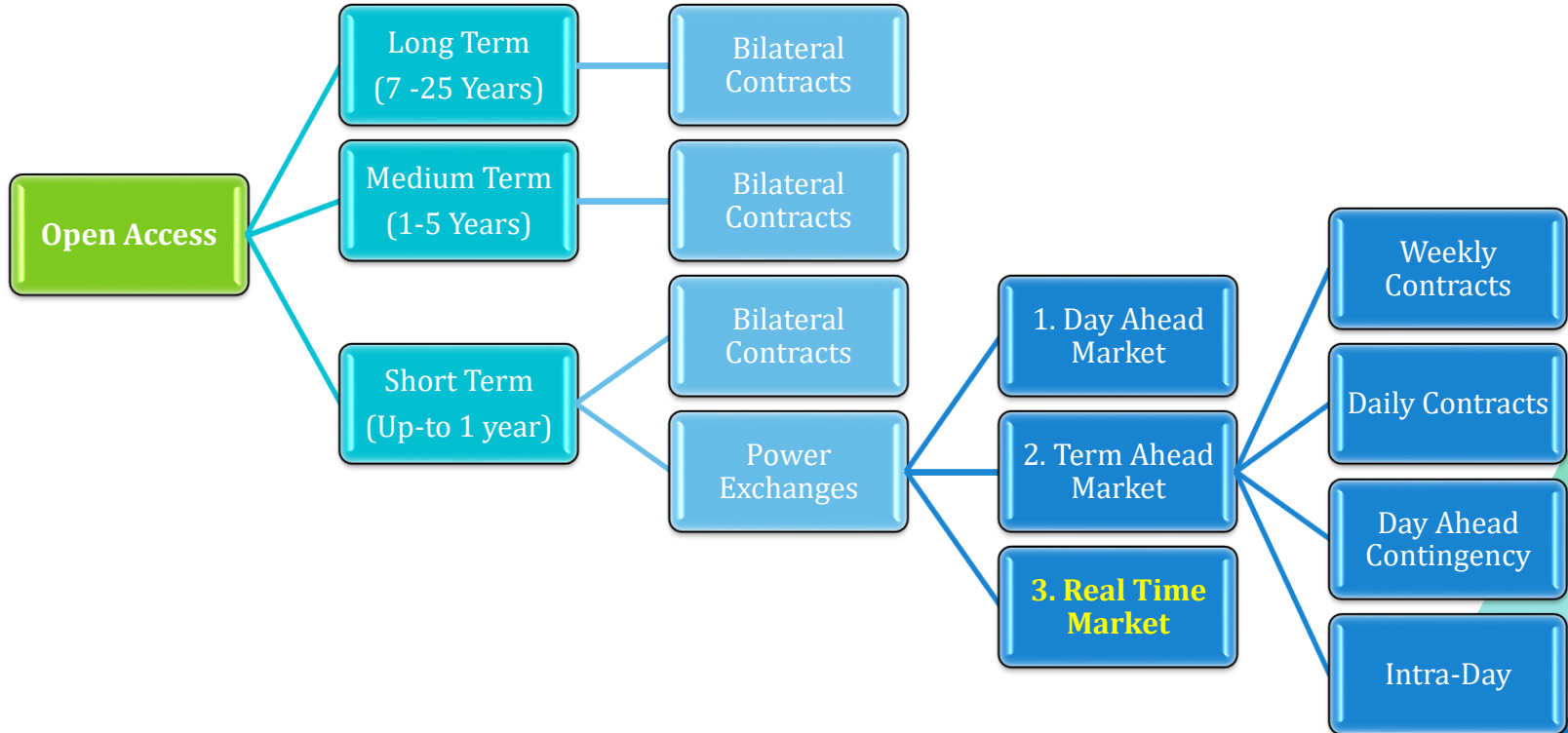


# **Presentation on Enhancing Participation in Real Time Market**

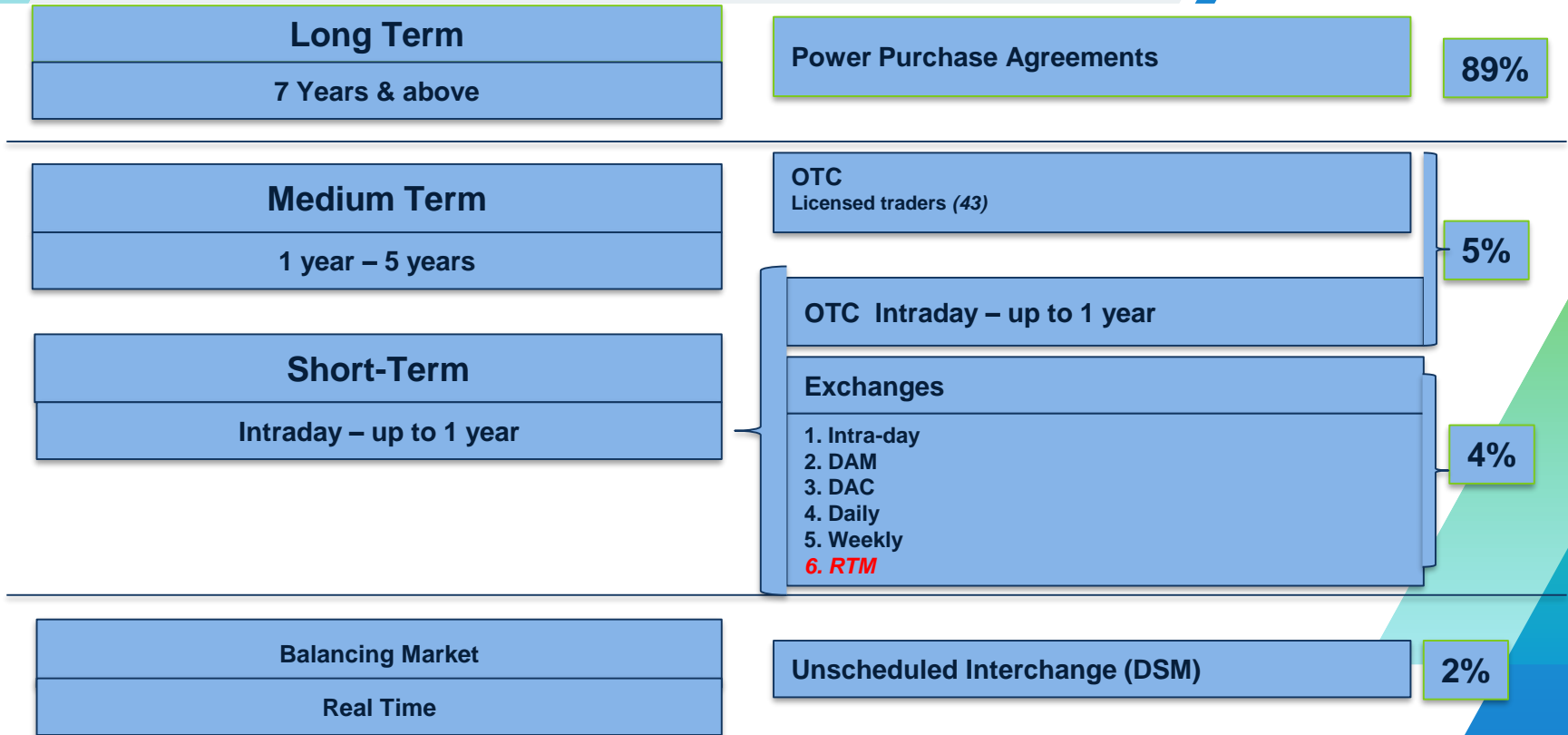
**By PTC India Ltd.**



# Indian Power Market



# Indian Power Market Present Status



## Assessment of impact of RTM

- It is observed that volume of TAM is gradually shifting towards RTM keeping DAM volume almost same.

Month	DAM (in MUs)	TAM (in MUs)	RTM (in MUs)
April'20	3692	396	-
May'20	5574	387	-
June'20	4174	74	515
July'20	4487	61	785
<b>Total (in MUs)</b>	<b>17927</b>	<b>918</b>	<b>1300</b>

Source: IEX

## RTM and DAM snapshot

RTM	Month	Buy Bid (MWh)	Sell Bid (MWh)	Cleared Vol (MWh)
	June'20	7,42,141	18,09,561	5,15,464
	July'20	10,09,985	21,26,115	7,84,963
	Aug'20	1,54,971	4,05,654	1,32,322

DAM	Month	Buy Bid (MWh)	Sell Bid (MWh)	Cleared Vol (MWh)
	June'20	46,61,780	101,64,249	41,74,340
	July'20	51,99,513	97,33,975	44,86,705
	Aug'20	8,45,285	15,71,281	7,30,535

## PTC's experience in RTM transaction

PTC actively participating in RTM since its introduction w.e.f. 1<sup>st</sup> June'20.

State Distribution companies are actively participating in RTM.

IPPs are also an active participants in RTM for their balance power

URS power is shifting towards RTM and thus SCED volume might be reduced.

## PTC's experience in RTM transaction

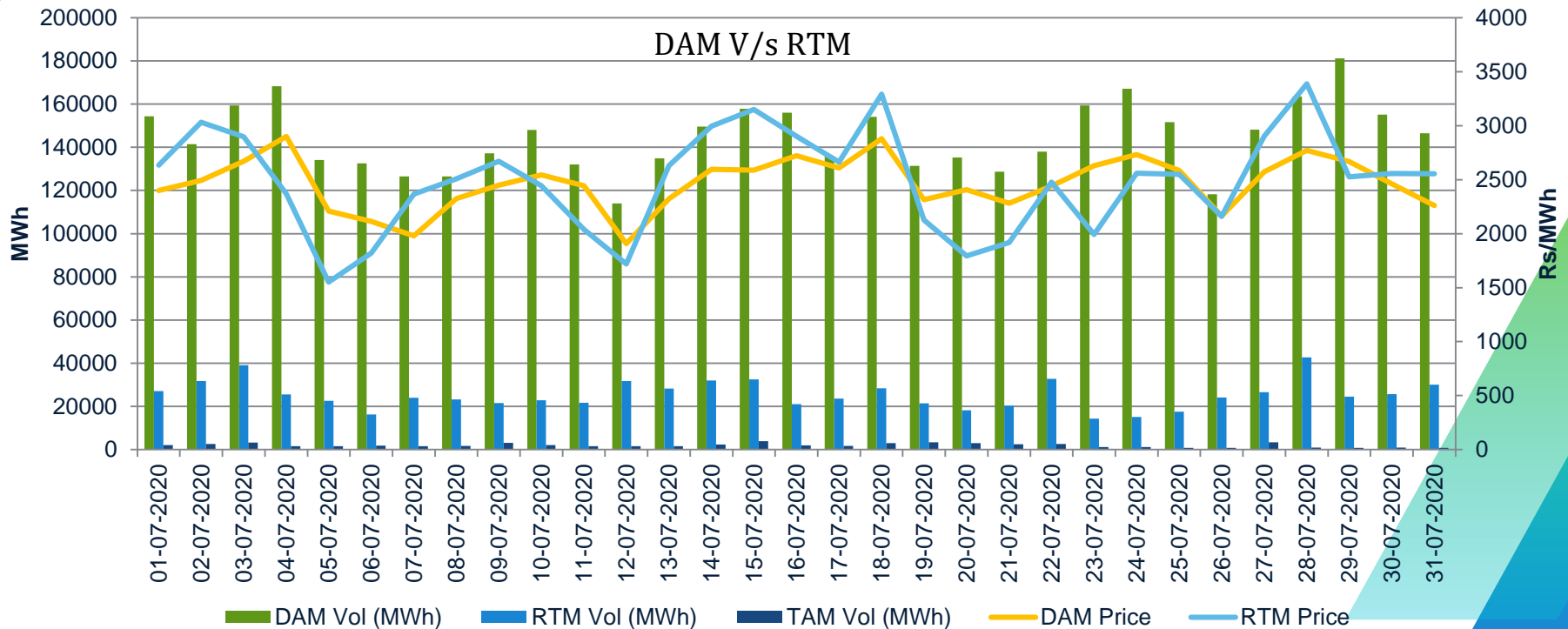
Introduction of API (Application program interface) giving stakeholders time to bid near to real time

Limited participation by Renewable Generators

No congestion noticed in bidding area in RTM segment

No Major difference noticed b/w DAM & RTM price except for some days

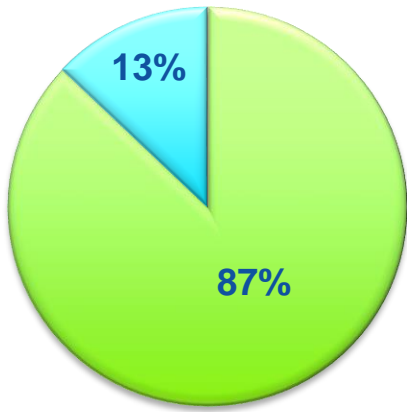
# PX's Product wise Volume & Price trend





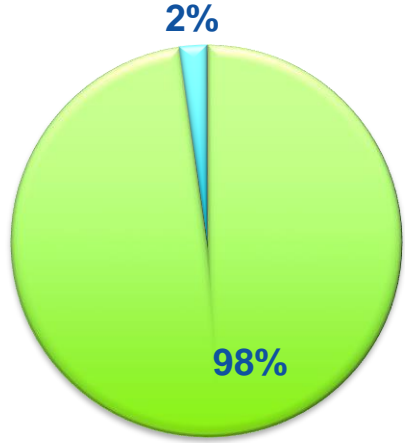
# Impact of RTM On Other Products of Power Exchange

FY 2019-20



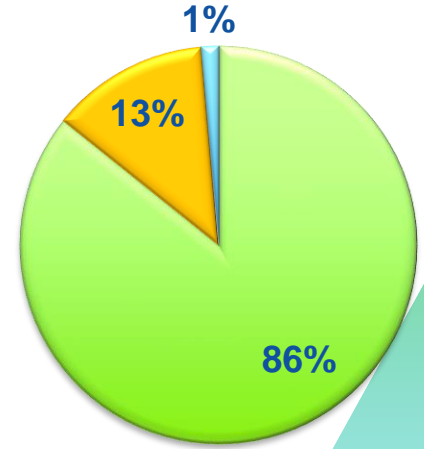
■ DAM ■ TAM

25<sup>th</sup> May'20-31<sup>st</sup> May'20



■ DAM ■ TAM

w.e.f 1<sup>st</sup> Jun'20



■ DAM ■ RTM ■ TAM

# Challenges

- RTM bidding involves 48 rolling trading windows per day with limited time gap for response for each session:
  - Requires efficient decision making in real time including price decision in short trading session.
- For an active participation nation wide real time market information is critical:
  - Transmission flows (region wise)
  - Demand of all states
  - Potential buy/sell volume for the upcoming time blocks
  - Capacity available/load requirements of other states/utilities
  - URS availability and prices
  - DSM information (frequency and price)
- Proactive involvement of Manpower for participation in Real Time Market

## Way Forward

- With introduction of products like Real Time Market (RTM), participants now have an option to fulfil their last mile power requirement or availability.
- Holistic trading desk management required by Utilities/ Generators to take advantage of changing market scenario.
- Holistic advisory and manpower support for optimization of overall power portfolio for any Utility. Involves key features like
  - i. Demand Forecasting and Supply Assessment
  - ii. Demand-Supply Gap trading support
  - iii. Scheduling and Optimization



# *Thank You*

*Dr. Rajib Kr. Mishra*  
*Director (Mktg & BD), PTC India*  
*Rajiv.Mishra@ptcindia.com*