dcenergy

DA/RT Exposure Calculation Alignment

February 2024

Disclaimer

DC Energy is not soliciting commodity pool business or investors or providing any advice via these materials or the related presentation. These materials and the related presentation are not an advertisement for investors or prospective investors or to the public generally. These materials are only for general information and discussion. The information included in these materials is not investment, trading or financial product advice.

The presentation may contain forward looking statements or statements of opinion. No representation or warranty is made regarding the accuracy, completeness or reliability of the forward looking statements or opinion, or the assumptions on which either is based. All such information is, by its nature, subject to significant uncertainties outside of the control of the presenter and DC Energy and also may become quickly outdated. These materials and the related presentation are not intended to be, and should not be, relied upon by the recipient in making decisions of a commercial, investment or other nature with respect to the issues discussed herein or by the presenter. To the maximum extent permitted by law, DC Energy and its officers, owners, affiliates and representatives do not accept any liability for any loss arising from the use of the information contained in these materials.

DC Energy supports a comprehensive review of credit exposure calculations

Exposure Calculation Reform

- **DC Energy supports the review of credit exposure calculations to see where targeted improvements can be made**

- **Our desire is to align the exposure calculations to better reflect the actual risk of a market participant's activity**
  - Instances where calculated risk is overstated ("over-collateralized") can lead to less market activity and higher liquidity premiums that are passed to load
  - Instances where calculated risk is understated ("under-collateralized") the market is exposed to default uplift risk
  - We seek to address gaps on both sides of the issue

The credit calculations should reflect the interdependency of real-time and day-ahead exposure

Exposure Calculation Enhancements

- **In order to reflect actual risk, the calculated exposure for the day-ahead and real-time need to be taken together so they are based on the same period of days and extrapolation factors**
- **Today there is a temporal mismatch on both the future liability side and the unbilled side of the Estimated Aggregate Labiality calculation**
- **Moreover, on the unbilled side there is a stark mismatch in the application of the unbilled extrapolation factor "M2"**

 |

A closer examination of the EAL credit calculation shows significant misalignment in how real-time and day-ahead exposure is calculated

Examination of EAL Components

-DA/RT comparison of days and "M" factors-

DA | RT

	SUM					
	Liability For FUTURE Activity			Liability For PAST but Unpaid Activity		
	MAX			MAX		
Date	RFAF*RTLE	RTLF	DFAF*DALE	URTA	RTLCNS	UDAA
2023-06-22		~1.5 x sum of activity in this window	M1 x DFAF x average in this window		sum of activity in this window	sum of activity in this window
2023-06-21						
2023-06-20						
2023-06-19						
2023-06-18						
2023-06-17						
2023-06-16	M1 x RFAF x max 14-day average in this window			M2 x max 14-day average in this window		
2023-06-15						
2023-06-14						
2023-06-13						
2023-06-12						
2023-06-11						
2023-06-10						
2023-06-09						
2023-06-08						
2023-06-07						
2023-06-06						
2023-06-05						
2023-06-04						
2023-06-03						
2023-06-02						
2023-06-01						
2023-05-31						
2023-05-30						
2023-05-29						
2023-05-28						

#3 Mistmatch: Relatively minor and is correct because it reflects actual invoice timing difference. Could be minimized by accelerating the invoice and cash clearing cycle, although that is not the proposal at hand.

#2 Mismatch: There is no offset for day-ahead acitivty. If day-ahead activity is a purchase, then the lack of consideration leads to a negative credit gap (i.e., undercollateralization)

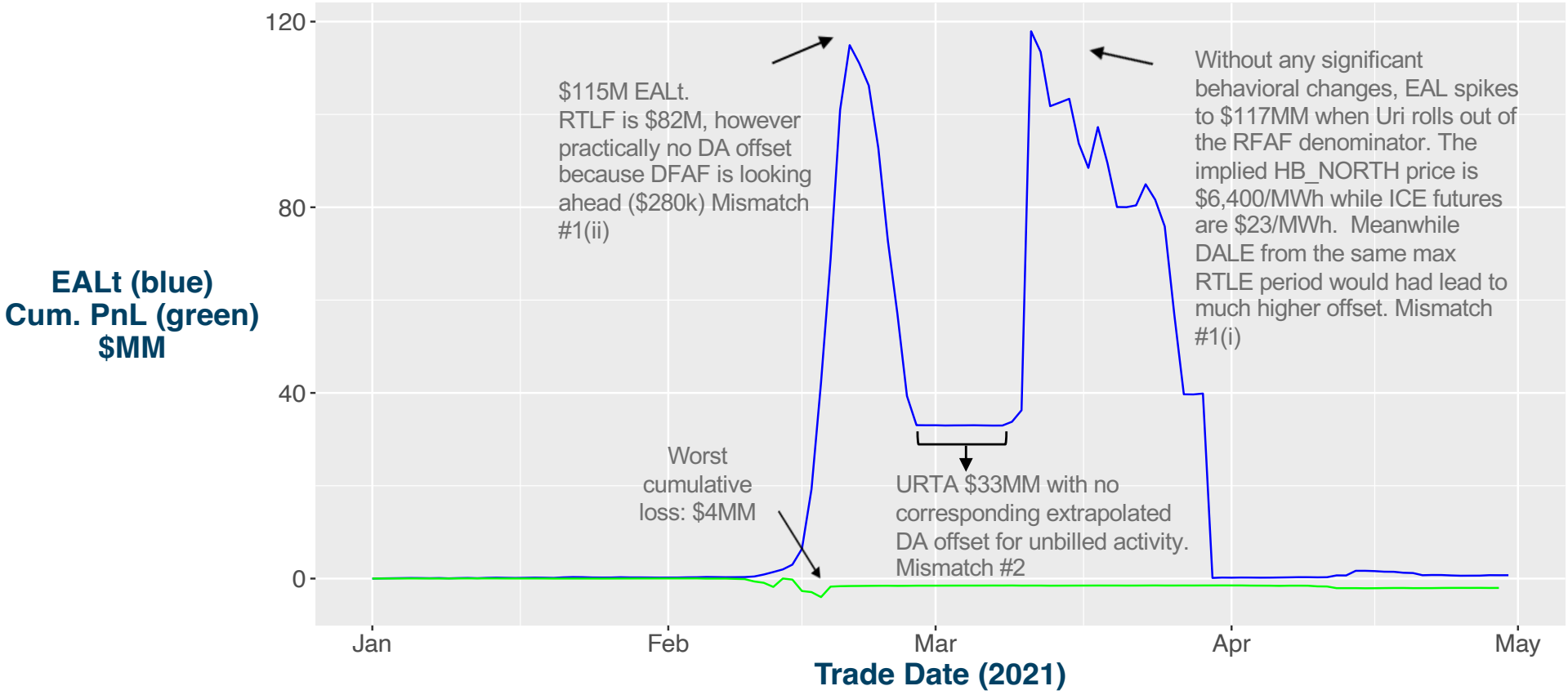
#1 Mismatch: RT and DA are misalinged: (i) Days for the extrapolated RTLE and DALE are significantly misaligned; and (ii) DALE is assessing a different period than RTLF due to the DFAF. This can produce positive and negative gaps when comparing calcuated exposure to invoice exposure, E.g. negative gap when the offset for DA acitivty is higher than the DAL corresponding to the max RTL period

Acronym key
RFAF= Real-Time Forward Adjustment Factor
RTLE= Real-Time Liability Extrapolated
RTLF= Real-Time Liability Forward
DALE= Daily Day-Ahead Liability Extrapolated
DFAF= Day-Ahead Forward Adjustment Factor
URTA= Unbilled Real-Time Amount
RTLCNS= Real-Time Liability Completed and Not Settled
UDAA= Unbilled Day-Ahead Amounts

The EAL calculation can dramatically overcollateralize as demonstrated by a 50MW energy only sale traded every hour from Jan. to Apr. 2021

EALt vs Cumulative Profit and Loss

- 50MW Energy Only Sale Around The Clock, Fees Excluded-



 |