CARD Distribution Methodology -Implications for Revenue Split by Load Class

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State of the Conversation

- It has come to the attention of ERCOT and the IMM that the current methodology for distributing CARD revenue to load can result in adverse incentives and inefficient market outcomes
- The adverse incentives are mostly a function of basing CARD distribution on load ratio share (LRS) for the peak 15-min interval for each month. The less time is included in the LRS calculation, the more incentive load has to adjust their behavior to maximize CARD revenue
- Thus, ERCOT and the IMM have proposed calculating the LRS over the whole month for the purpose of allocating CARD revenue



Implications of LRS Calculation on Revenue Split by Load Class

- It was brought to our attention that this change would tend to move revenue from residential to industrial loads
- The IMM's position is that, hypothetically, CARD distribution should be based on load's exposure to congestion rent
- Thus, our analysis is meant to answer the following questions:
 - To what extent does revenue shift between load classes as a function of the number of hours included in the LRS calculation?
 - What revenue split most closely matches exposure to congestion rent?
- Exposure to congestion rent is accounted for by weighting the LRS according to hourly congestion rent over each month



System-wide revenue split as a function of LRS calculation and exposure to congestion rent



Notes: Data from Jun23 – May24 / CR = congestion rent

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Zonal revenue split as a function of LRS calculation and exposure to congestion rent



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Summary of Results

- As expected, increasing the number of hours included in the LRS calculation tends to shift revenue from residential to industrial loads
- The revenue split that most closely matches exposure to congestion rent correlates with approximately 400-500 peak demand hours included in the LRS calculation
- The IMM would support increasing the peak demand hours included in the monthly LRS calculation for CARD to 500, a level that is more consistent with load exposure to congestion rent

