



Modernized DOS Tariff

Energy Storage Alberta
CanREA Summit
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Why Modernized DOS?



Energy Storage Tariff Challenges

- AESO engaged industry to develop a specific energy storage tariff in 2023.
- Unable to reach a consensus on tariff design.
- AESO moved forward with updates to DOS as an alternative.

Enhanced Transmission Revenue

- Modernized DOS Tariff includes a contribution to fixed transmission costs.
- Demonstration that use of additional energy under rate DOS would not otherwise occur under any other rate.
- Changes make DOS available to all technologies and provide for a non-firm rate option.

Key Modifications for Modernized DOS



Current DOS

- Temporary or short-term basis, no guarantee of capacity
- DOS 7 minute or 1 hour, 0% and 50% fixed cost contribution
- Fax requests for use
- 75% take or pay requirement, minimum 8 hours.
- One year renewal with \$5000 application fee
- \$500 transaction fee

Modernized DOS

- Long Term use, no guarantee of capacity
- DOS Dispatchable – 10-minute response, 20% fixed cost contribution
- Energy Market bids
- Pay for use plus cost based operating reserves, losses and riders
- 5-year renewal with \$10,000 application fee
- No transaction fee

Modernized DOS Tariff Rate Components

DOS Dispatchable

- Energy Charge: \$7.19/MWh
- Incremental Losses
- Operating reserves – flow through of pro-rata share
- Rider E – Losses Calibration Factor
- Rider F – Balancing Pool

Storage DTS/DOS Options Business Case Considerations



Storage Scenario
100 MW, 2-hour duration
200 MWh/charge cycle
0 MW Coincident Peak Demand
100 MW STS Contract

Fast Charge

- 100 MW DTS
- 5 charge cycles
- 2 hours per cycle
- 1,000 MWh
- \$450K per month
- \$446/MWh

Slow Charge

- 10 MW DTS
- 5 charge cycles
- 20 hours per cycle
- 1,000 MWh
- \$52K per month
- \$52/MWh

DTS plus DOS

- 5 MW DTS, 95 MW DOS
- 5 charge cycles
- 2 hours per cycle
- 1,000 MWh
- \$34K per month
- \$33/MWh

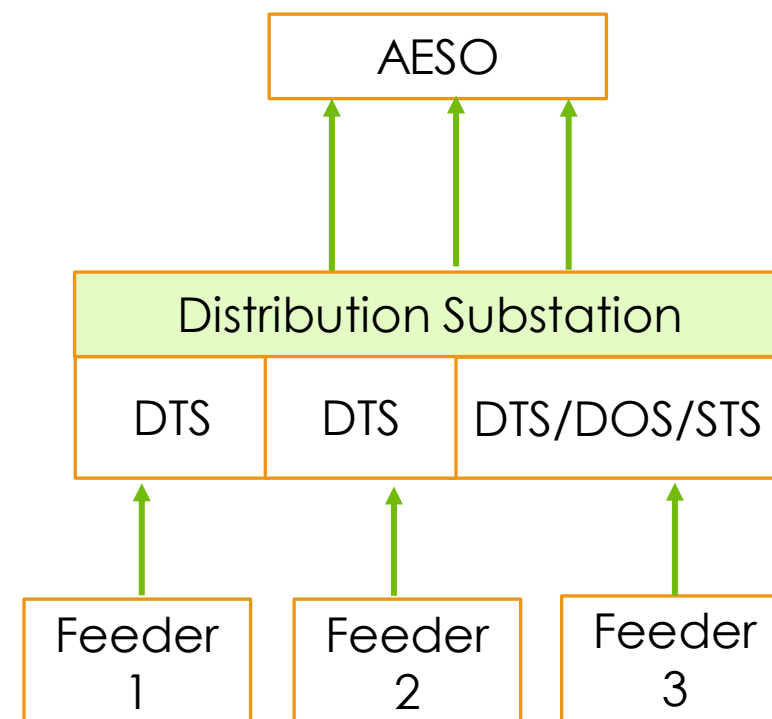
- 10 more charge cycles adds \$20K in additional revenue
- Unit cost is \$18/MWh

DTS plus DOS

- Increased utilization of storage asset.
- Improved flexibility of when to charge.
- Incremental contribution to transmission revenue over expected slow charge option.

Considerations for Distribution Connected Storage Assets

- The AUC approved the AESO Adjusted Metering Practice implementation plan in April 2024 – Decision 28441-D02-2024.
- This will provide for System Access Service (SAS) at the feeder level.
- Provided the storage asset is on its own feeder, the SAS should facilitate DOS if there is available capacity at the substation.
- Will require further work with the DFOs to flow through the AESO DOS tariff provisions.



Next Steps

- AUC Process 28989 underway
- Bulk and Regional Tariff has been delayed to January 2027
- Proceeding expected to close by end of October 2024.
- Tariff could be in effect in 2025 with AUC approval.