

ERCOT CMWG Update

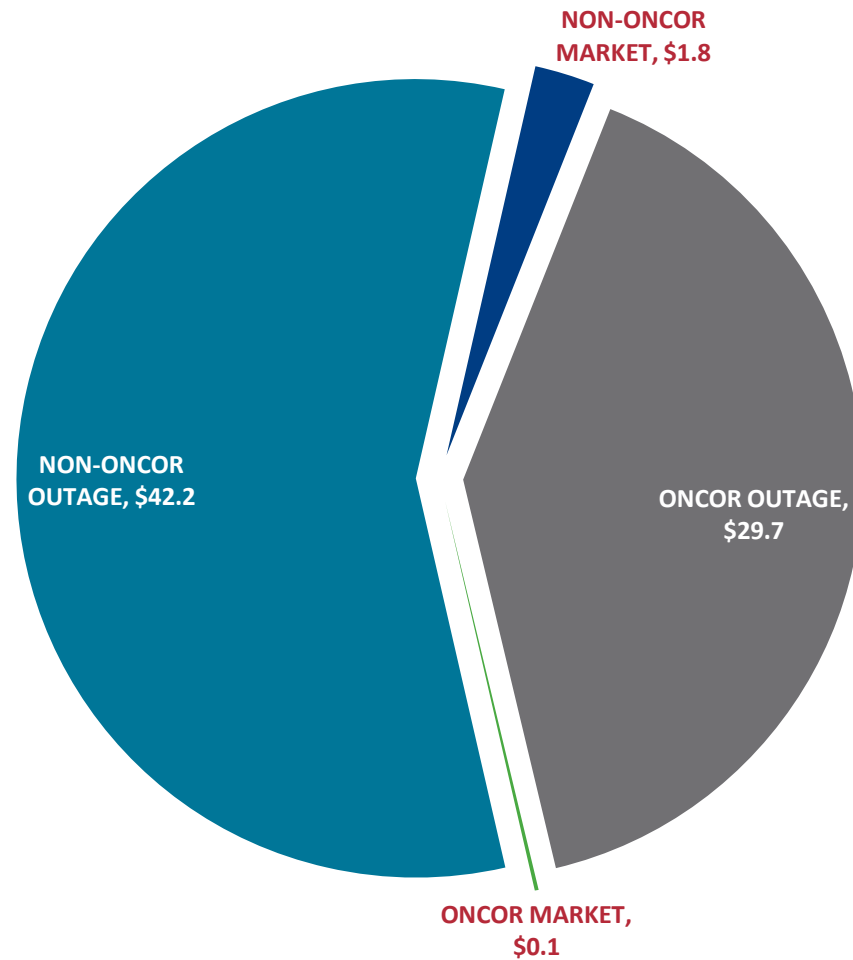
April 2014 Oncor Clearances

Collin Martin
Director – Transmission Engineering
Oncor
July 18, 2014

WE DELIVER.



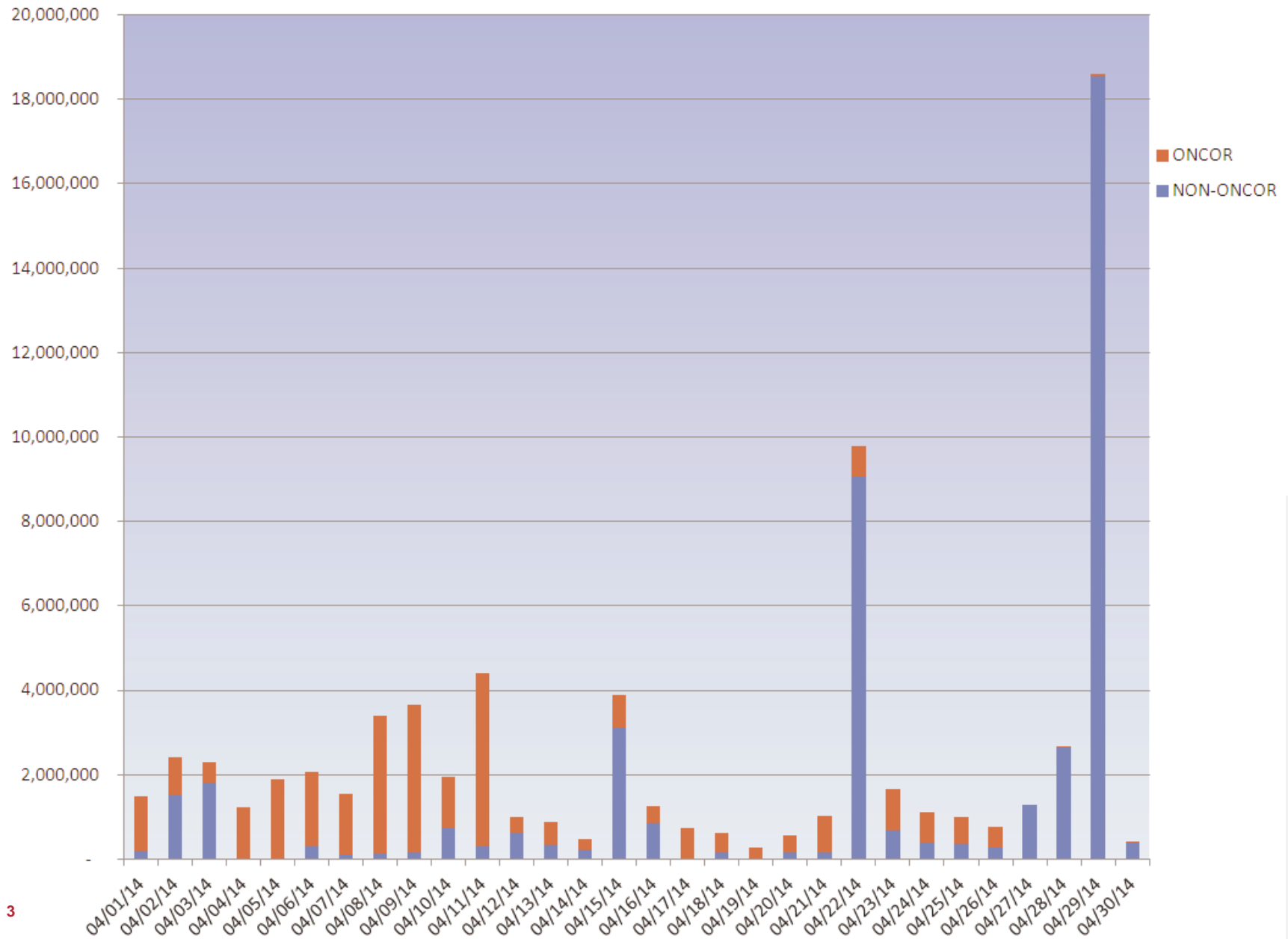
APRIL 2014 ERCOT CONGESTION RENT



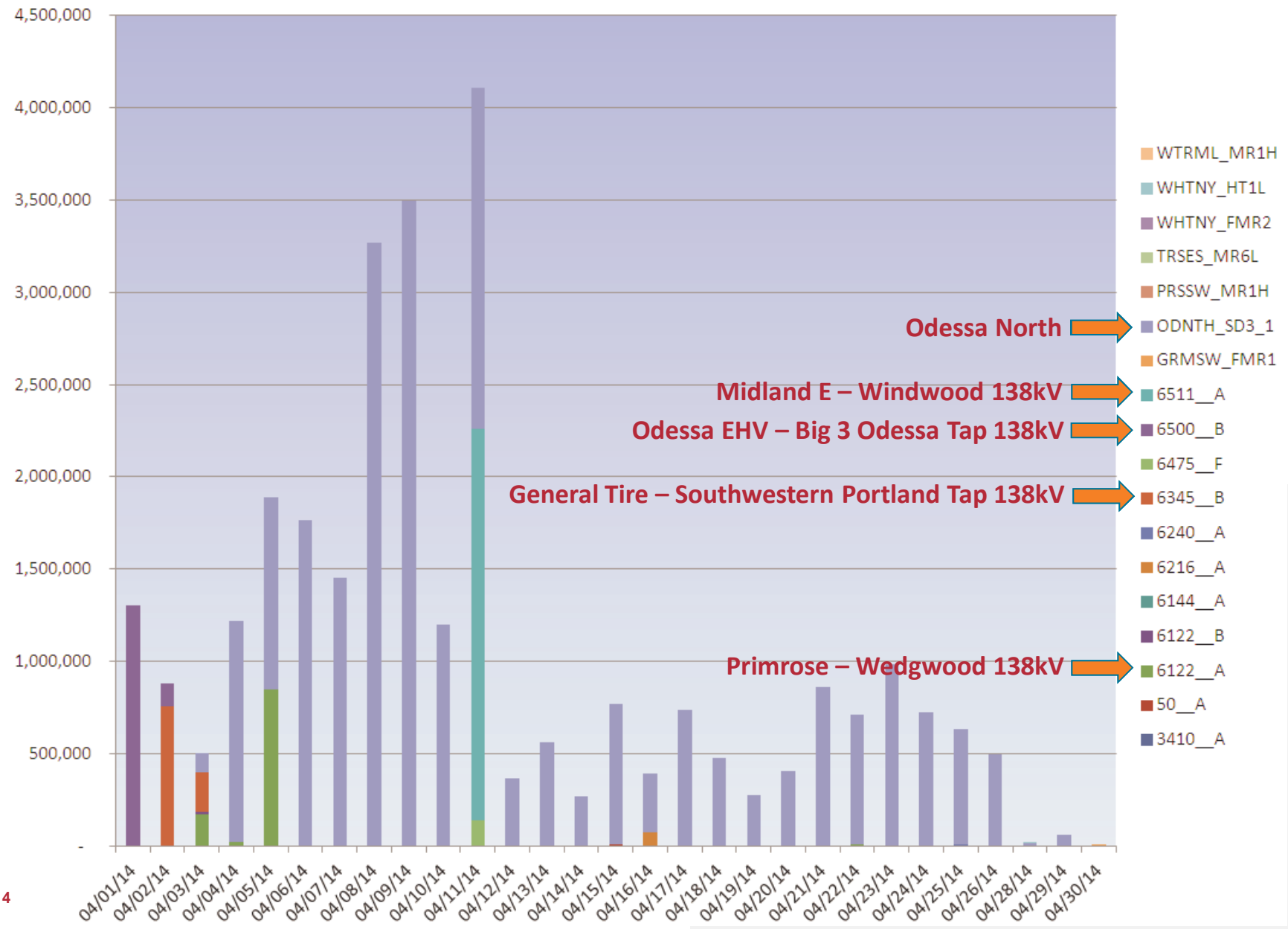
² Data source: Internal calculations from SCED runs. Note that values do not 100% correlate to the April 2014 Monthly Operations Report



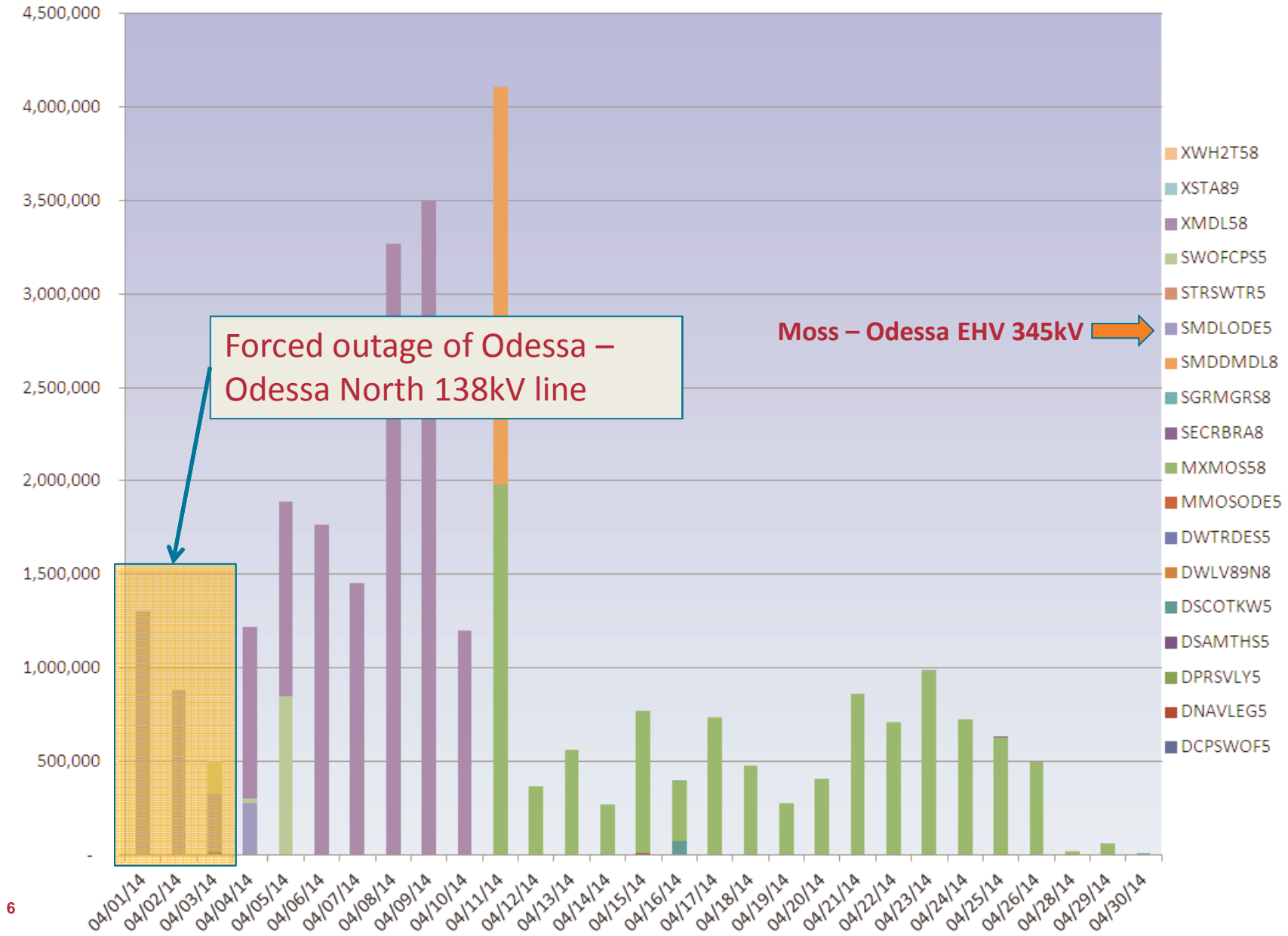
APRIL 2014 ERCOT CONGESTION RENT



APRIL 2014 CONGESTION RENT – BY ONCOR CONSTRAINT

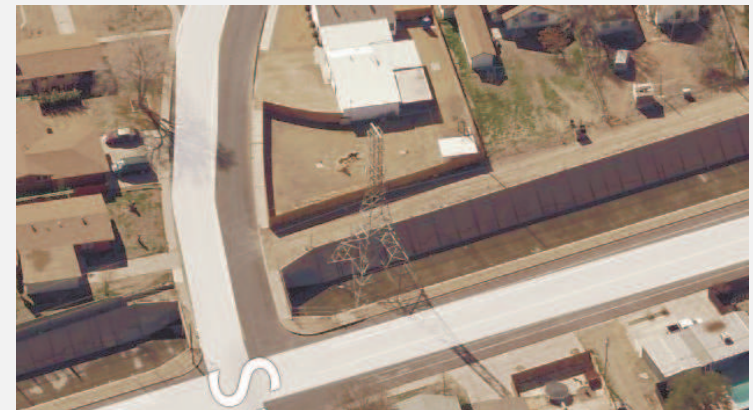


APRIL 2014 CONGESTION RENT – BY ONCOR CONTINGENCY



ONCOR CLEARANCE: ODESSA – ODESSA NORTH 138kV

- Lattice tower severely damaged by public vehicle
- Tower suspended by crane until steel repair kit was available
- Line forced out on 4/1/14 – 4/3/14 to make repairs
- ~\$2.7M congestion

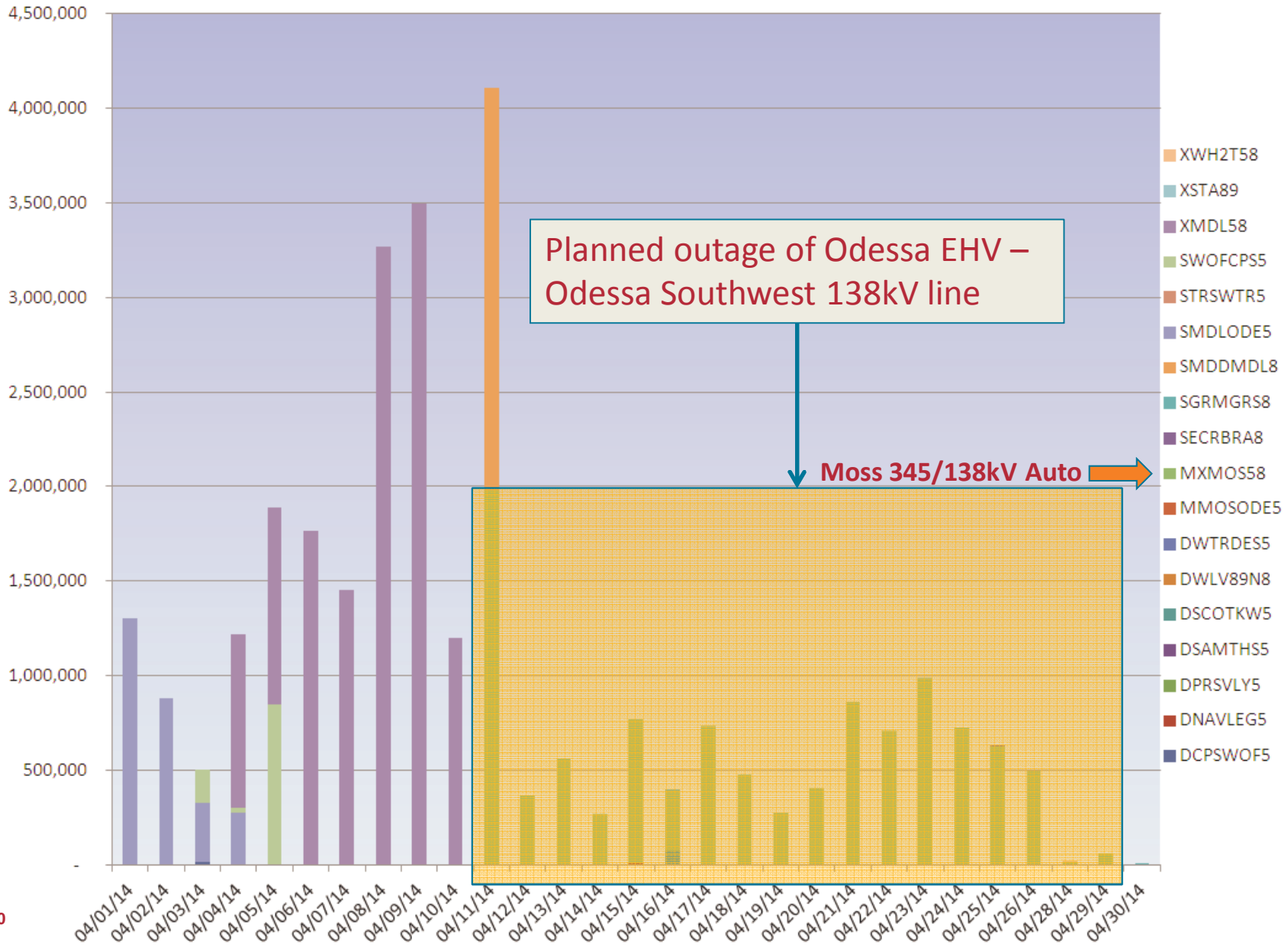


ONCOR CLEARANCE: ODESSA EHV – MOSS – MIDLAND EAST 345kV LINE

- Clearances required to convert Moss 345kV Switching Station to double-breaker, double-bus arrangement
- 345kV line fault will no longer trip both the line and auto (now separate contingencies)
- ~\$14.3M congestion

Clearance Tracking	Submission Date	Clearance Date
Initial request	9/4/2013	3/15 - 3/19
Pre-construction meeting	1/24/2014	3/24 - 3/30
Construction progress	2/27/2014	4/1 - 4/7
Odessa - Odessa North forced outage	4/1/2014	4/4 - 4/10

APRIL 2014 CONGESTION RENT – BY ONCOR CONTINGENCY



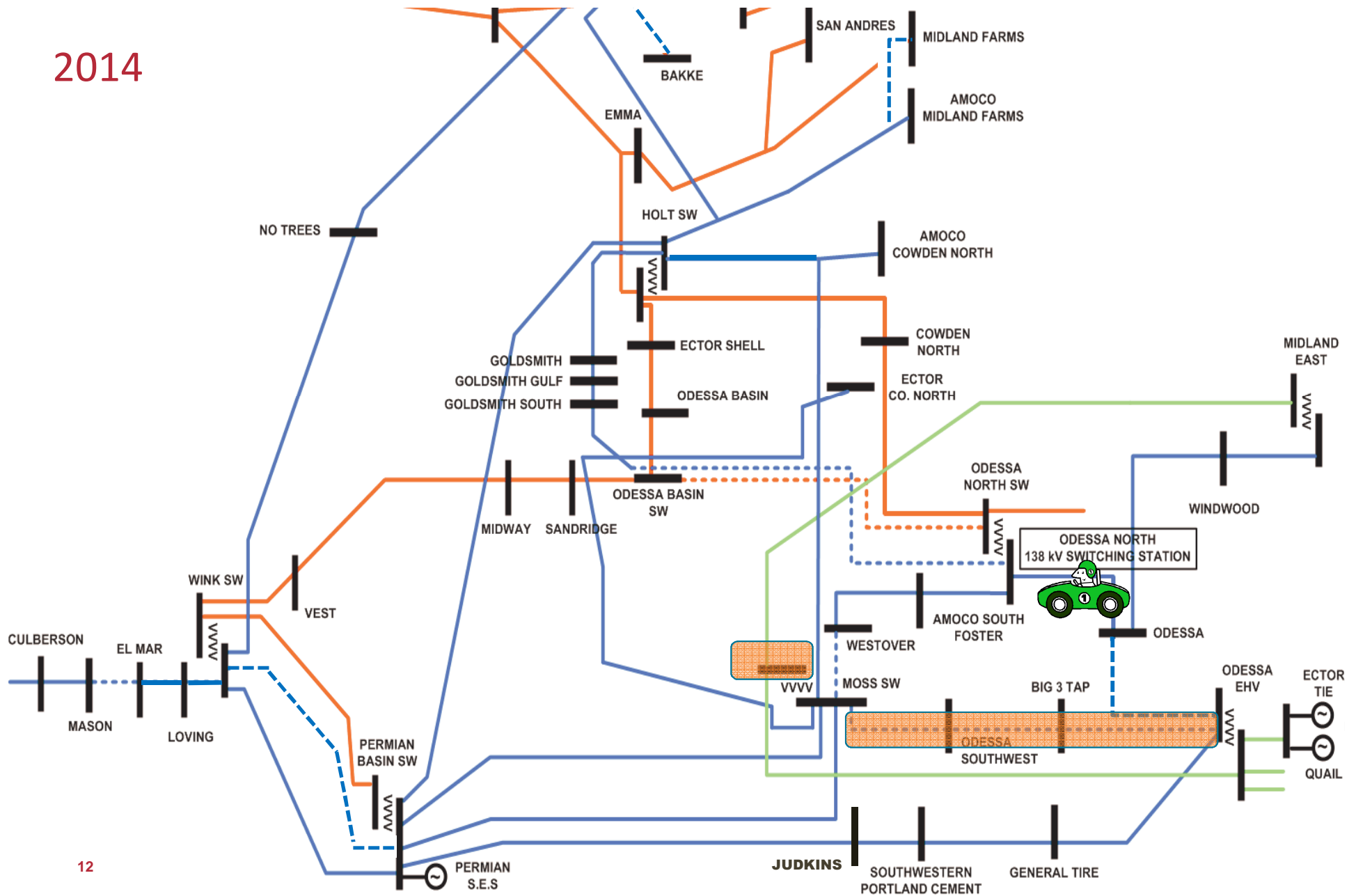
ONCOR CLEARANCE: ODESSA SOUTHWEST – ODESSA EHV 138kV LINE

- Clearances required to reconductor Moss – Odessa EHV 138kV line
- Odessa EHV – Odessa Southwest section completed in April
- Odessa Southwest – Moss section completed in May
- Increased line rating from 897A to 1,648A
- ~\$12.8M congestion

Clearance Tracking	Submission Date	Clearance Date
Initial request Cancelled 3/3/2014	1/27/2014	3/3 - 4/18
Construction resource constraints Note: Resulted in multiple shorter clearances	3/27/2014	4/2 – 5/1

ONCOR WEST TEXAS SYSTEM OVERVIEW

2014



ONCOR CLEARANCES: TIMING DRIVERS

Exact clearance windows and durations are not 100% firm at the time of requests

- Forced outages
- Weather
- Construction resources
- Material availability
- Construction delays
- Maintenance outages

The completion of planned improvements have reduced the likelihood of continued congestion



ONCOR INITIATIVES TO IMPROVE CLEARANCE REQUEST TIMING

Ad Hoc Congestion Task Force

- Identify, document and track congestion events
- Elevate potential mitigations and identify congestion “red zones”

Scheduling Approach

- Consolidation and standardization
- Initial focus on West Texas and 345kV
- Expanding focus to include full system construction and selected maintenance outages
- Improved communication around outage scheduling

APPENDIX

For background information on West Texas projects see:

<http://www.ercot.com/content/meetings/rpg/keydocs/2014/0422/OncorWestTexasUpdateToERCOTRPG04222014.pdf>

