

# Exhibit to Agenda Item #1

Accept the monitoring report for **Strategic Direction SD-4, Reliability.**

Board Policy Committee and Special SMUD Board of Directors Meeting

Wednesday, June 8, 2022, scheduled to begin at 5:30 p.m.

Virtual Meeting (online)

# Agenda

- 2021 SD-4 annual monitoring report
- 2022 year-to-date distribution system reliability

# SD-4, Reliability Policy

Meeting customer energy requirements is a core value of SMUD.

Therefore:

SMUD will assure all customer energy requirements are met. This will be accomplished through the use of: (i) its generation resources and purchase power portfolio 100 percent of the time; and (ii) its transmission assets to assure an overall availability of at least 99.99 percent.

SMUD will achieve distribution system reliability by:

Limiting the average frequency of outage per customer per year to:

- With major event : 0.99 – 1.33
- Excluding major event : 0.85 – 1.14

Limiting the average duration of outages per customer per year to:

- With major event: 67.5 – 93.3 minutes
- Excluding major event: 49.7 – 68.7 minutes

Ensuring that no individual circuits exceed these targets for more than two consecutive years. For circuits that exceed these targets for two consecutive years, a remedial action plan will be issued and completed within eighteen months.

SMUD will maintain the electric system in good repair and make the necessary upgrades to maintain load serving capability and meet regulatory standards.

# SD-4, 2021 Reliability Results

## ***Generation and Transmission System***

Met customers' energy supply needs 100% of the time through a combination of SMUD generation and purchase power supplies

- **Generation Asset and Gas Pipeline Availability**
  - *Thermal Generation – 92.80%*
  - *Hydro Generation – 89.72%*
  - *Thermal Generation June through September – 98.46%*
  - *Hydro Generation June through September – 98.91%*
  - *At system peak, 39% of the generation was provided by internal resources and 61% was provided by purchased power*
- **Overall availability of transmission system was 100%**

# SD-4, 2021 Reliability Results

SMUD was in compliance for both System Average Interruption Duration Index (SAIDI) and System Average Interruption Frequency Index (SAIFI) (excluding major events). Reliability targets including major events were exceeded for both SAIDI (227.2 minutes) and SAIFI (1.54).

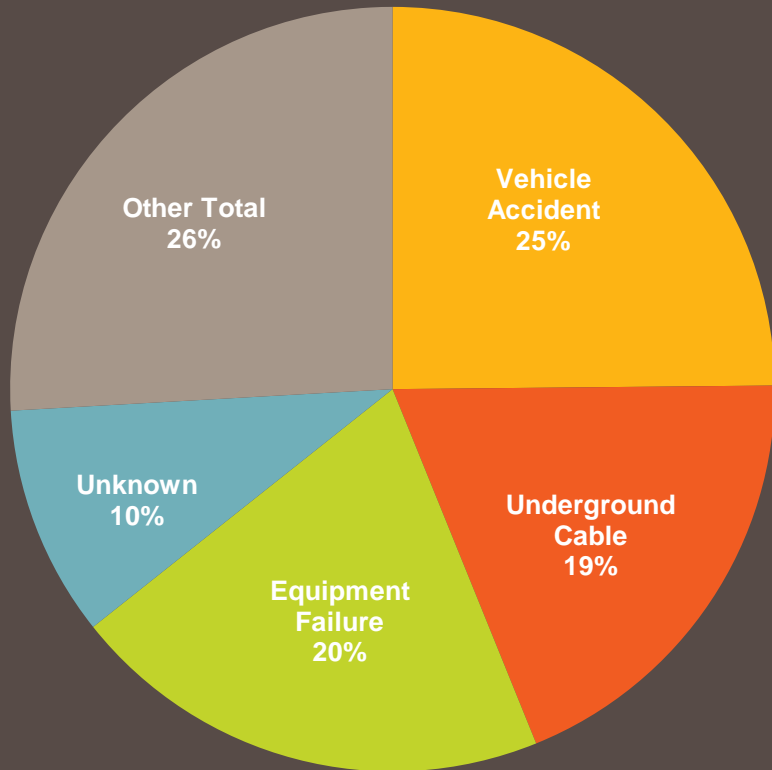
	With Major Events		Excluding Major Events	
	SD-4 Limit	2021 Results	SD-4 Limit	2021 Results
<b>SAIFI</b> [Average Outage Frequency]	1.33	1.54	1.14	1.04
<b>SAIDI (minutes)</b> [Average Outage Duration]	93.3	227.2	68.7	60.4

- 97.9% of all distribution circuits (744 circuits) met the reliability criteria

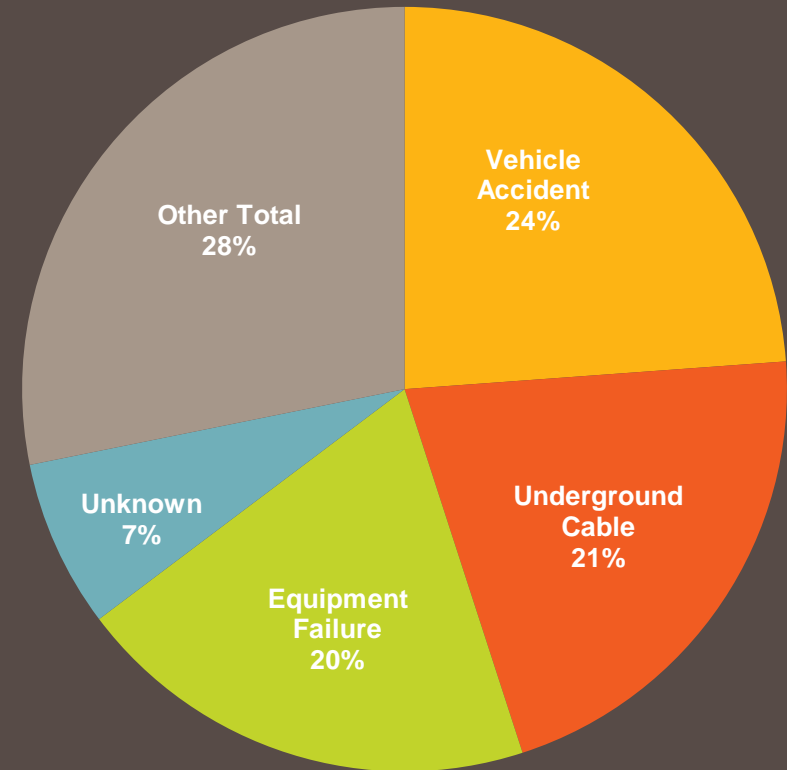
# 2021 Distribution System Performance

System Average Interruption Frequency Index (SAIFI)  
Year End Results = 1.04 (9% under SD-4 limit)  
SD-4 Limit = 1.14

System Average Interruption Duration Index (SAIDI)  
Year End Results = 60.4 min. (12% under SD-4 limit)  
SD-4 Limit = 68.7 minutes

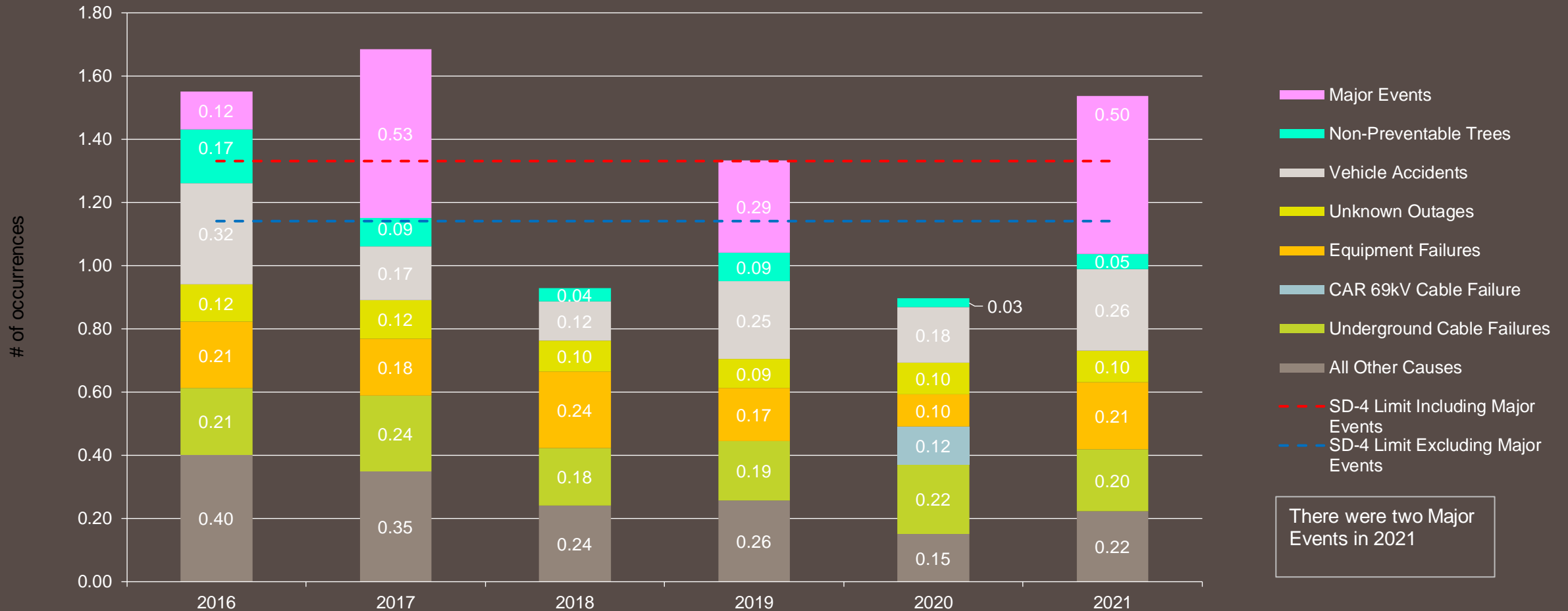


Average Outage Frequency (SAIFI)

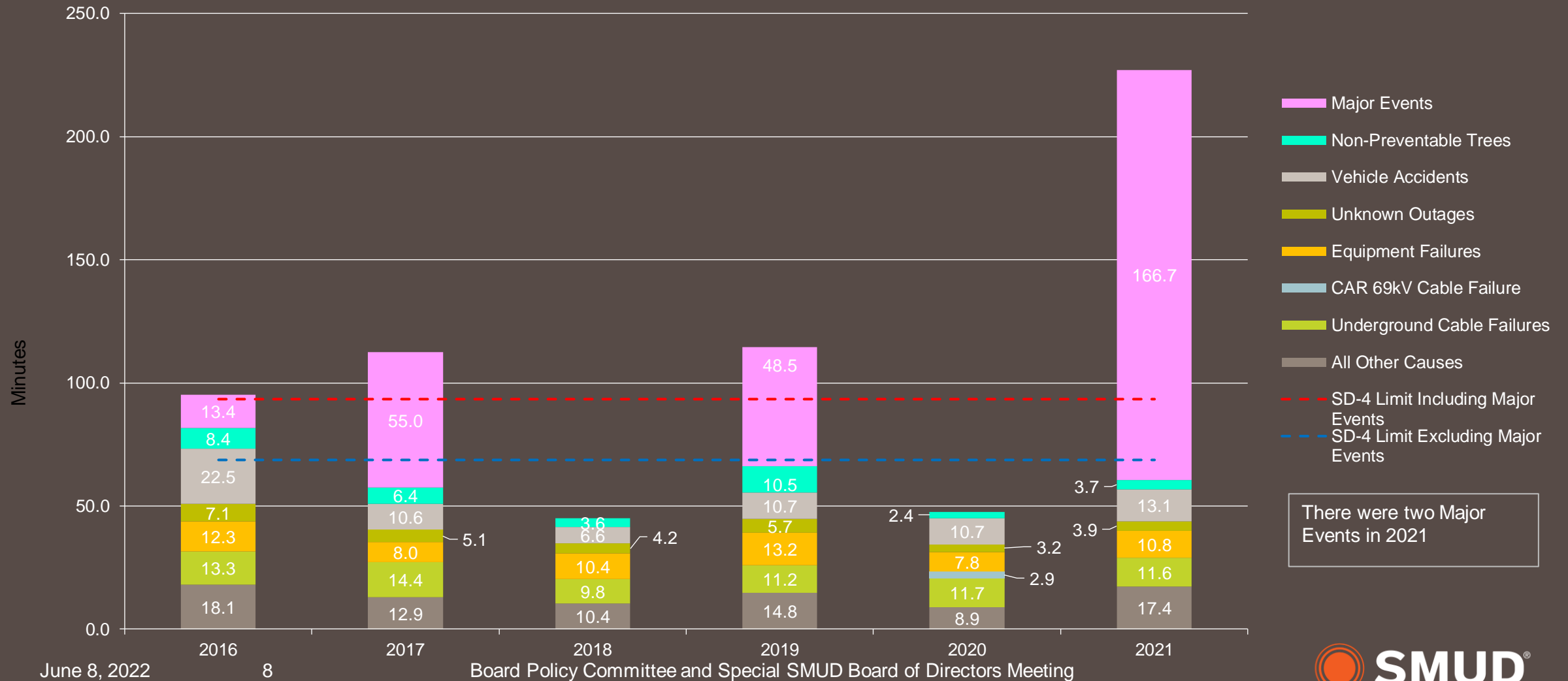


Average Outage Duration (SAIDI)

# Outage Frequency (SAIFI) Performance Drivers Multi-Year Comparison



# Outage Duration (SAIDI) Performance Drivers Multi-Year Comparison

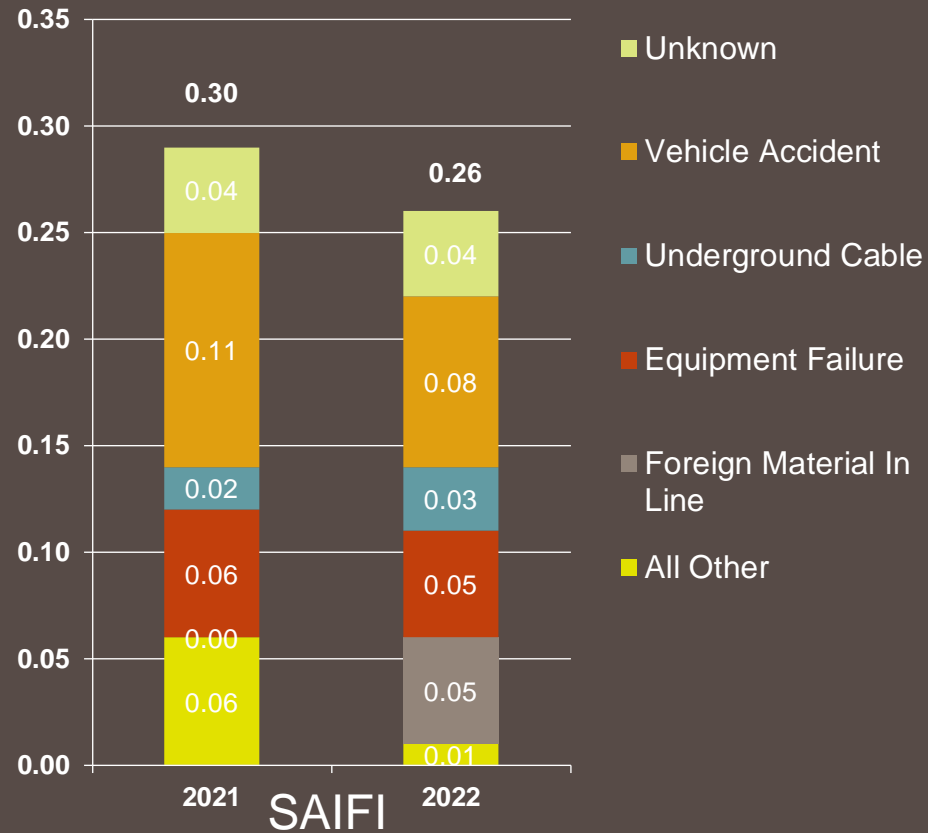




# 2021 Worst Performing Circuits

- Nine circuits (1.2% of the total number of circuits) exceeded the reliability limits for more than two consecutive years.
- Seven additional circuits exceeded the reliability limits for two consecutive years (0.9% of the total number of circuits).
- A total of 23 projects were issued to improve the reliability of these 16 circuits.
- Thirteen projects have been completed, while the remaining 10 projects are in progress and scheduled to be completed by the 18-month requirement.

# 2021 Distribution Reliability Update Comparison to 2022 – YTD Thru March 31st



2021 Reliability	Excluding Major Events		
	SD-4 Limit	Jan. 1 – March 31, 2022	2022 YE Projection
<b>SAIFI</b>	1.14	0.26	1.06
<b>SAIDI (minutes)</b>	68.7	13.2	59.1

# Questions

