## 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 7, 2023, scheduled to begin at 6:00 p.m. SMUD Headquarters Building, Auditorium



## Agenda

• 2022 SD-4, Reliability annual monitoring report



## 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, Reliability Index Definitions

#### System average interruption duration index (SAIDI)

Measures the average total minutes of outage that customers on the system experienced in the reporting year

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SAIDI = <u>Total customer minutes of outage</u>
Total number of customers
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#### System average interruption frequency index (SAIFI)

 Measures the average number of sustained outages (i.e., outages greater than 5 minutes in length) that a customer on the system experienced in the reporting year

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SAIFI = <u>Total number of sustained customer outages experienced</u>

Total number of customers
```



## SD-4, 2022 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 67.04%
  - Hydro Generation 90.72%
  - Thermal Generation June through September 58.54%
  - Hydro Generation June through September 99.14%
  - At system peak, 42% of the generation was provided by internal resources and 58% was provided by purchased power
- Overall availability of transmission system was 100%.



## SD-4, 2022 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 met for SAIFI (1.28) and exceeded for SAIDI (175.8 minutes).

	With Major Events		Excluding Major Events	
	SD-4 Limit	2022 Results	SD-4 Limit	2022 Results
SAIFI [Average Outage Frequency]	1.33	1.28	1.14	0.93
SAIDI (minutes) [Average Outage Duration]	93.3	175.8	68.7	53.7

99.1% of all distribution circuits (756 circuits) met the reliability criteria

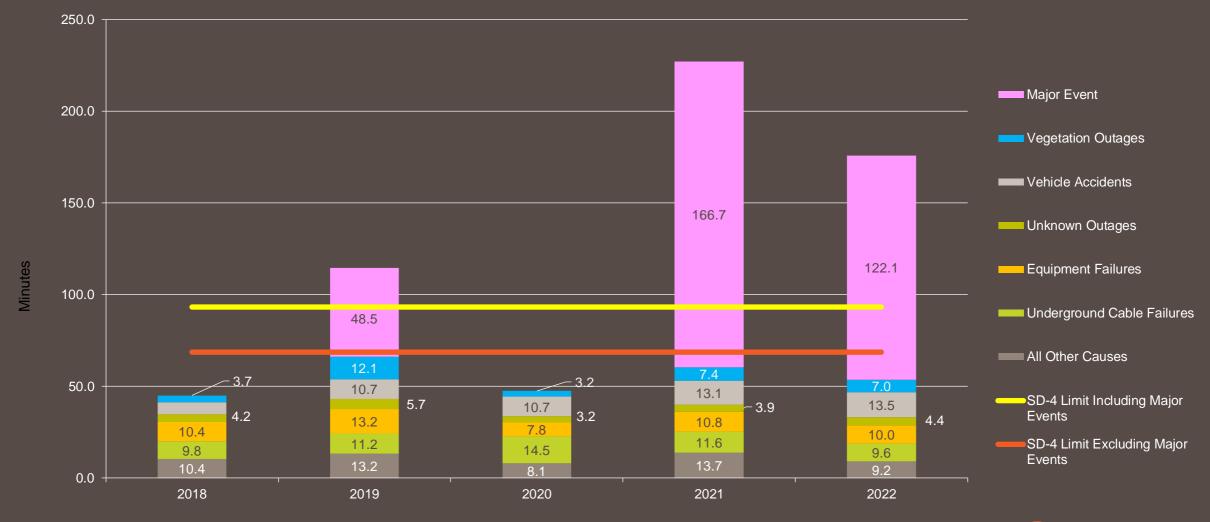


# Outage Frequency (SAIFI) Performance Drivers Multi-Year Comparison





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





### 2022 Worst Performing Circuits

- Seven circuits exceeded reliability limits for two or more consecutive years.
- Thirteen projects were issued to improve reliability of the above seven circuits.
  - Seven projects have been completed
  - Remaining six projects are in progress and scheduled to be completed within the 18-month requirement.



## Requested Action

Accept the 2022 SD-4 monitoring report



## Questions



