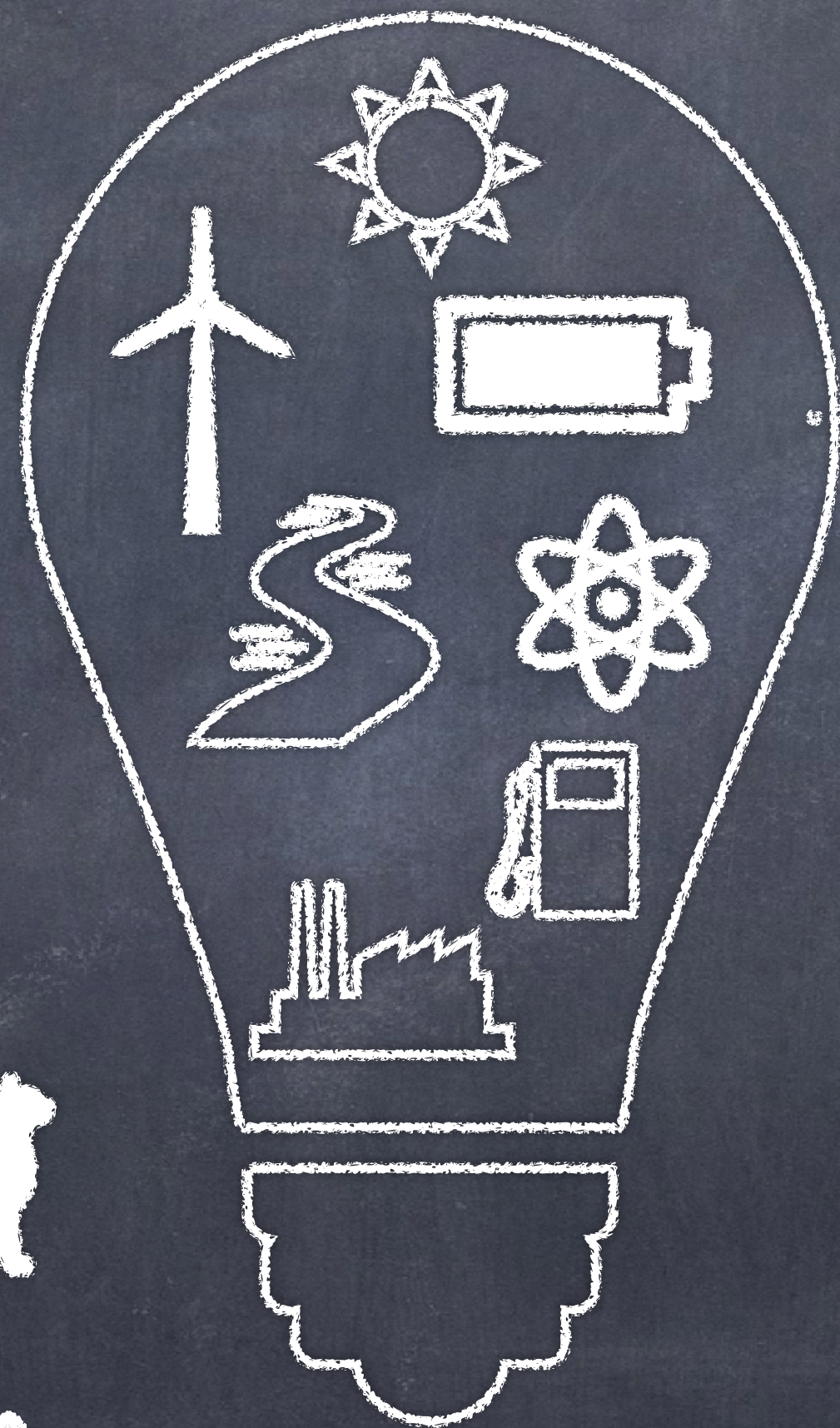
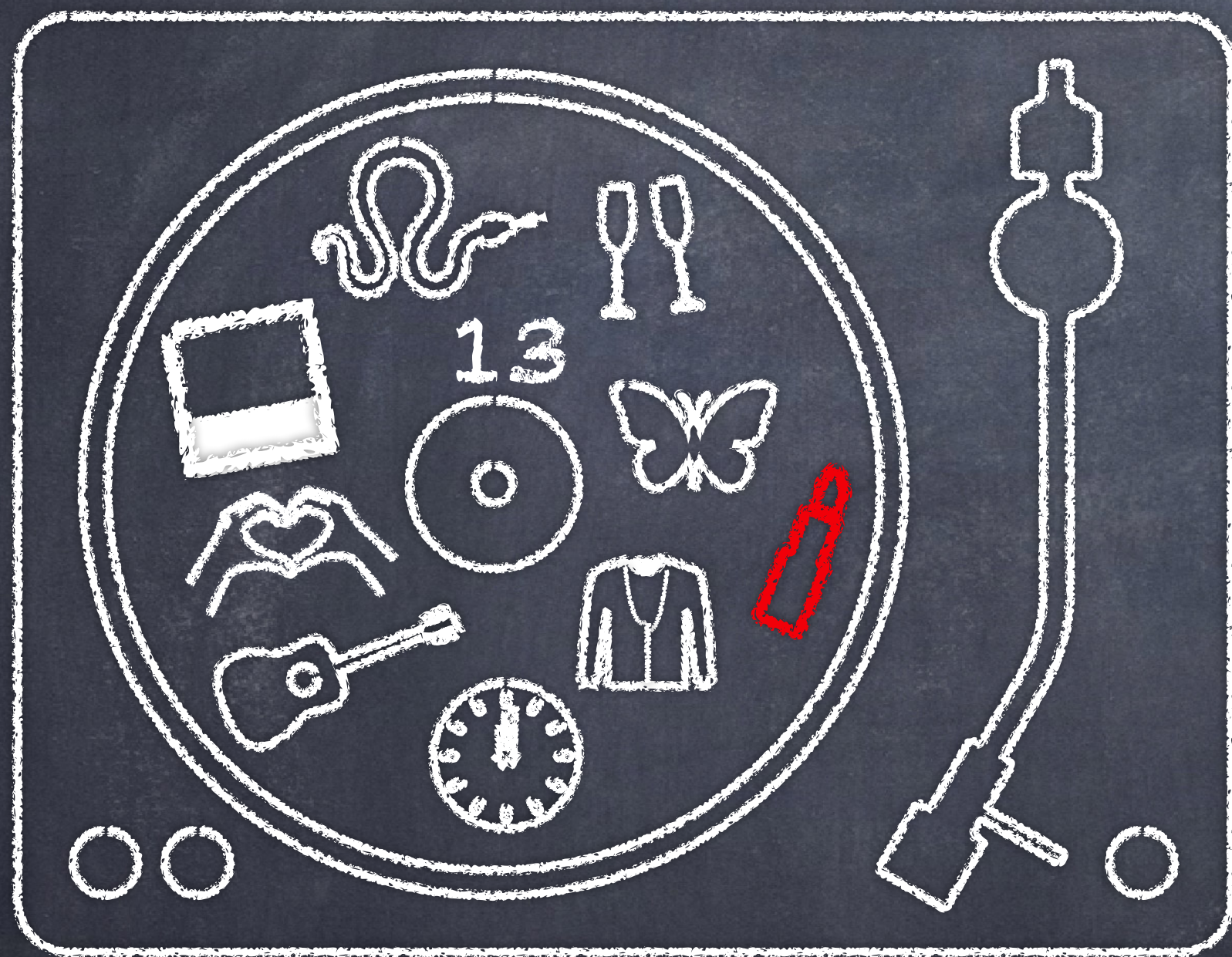


The eras of the electric sector

A Public Power Underground interview of Katherine Blunt

The electric sector is evolving Like the eras of Taylor Swift



Areas of Insight

- Debuted in niche markets
- Cross-over increased awareness and popularity
- Sleepless nights are a cautionary tale



Never ever ever,
getting back together

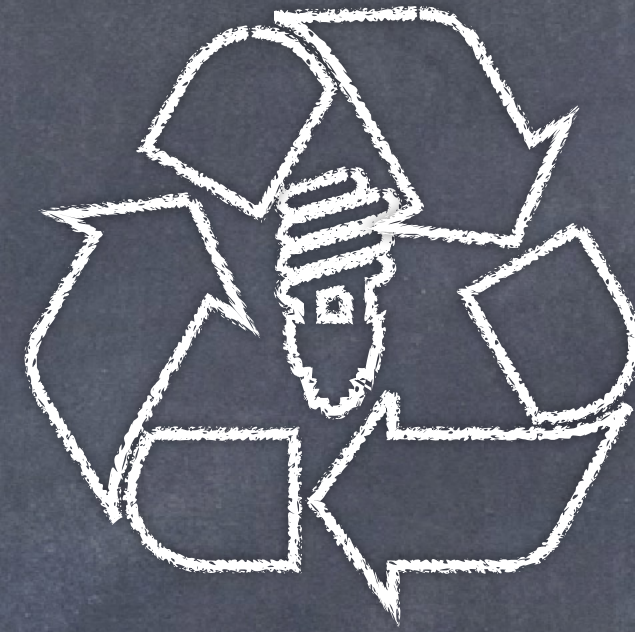
The eras of the electric sector



Insull era



Electrification era



Efficiency era



Deregulation era



Power Crisis Era



Energy Independence era



Global era

The Insull Era is the self titled album era of Taylor Swift



Electric Industry

War of the Currents (Edison championing DC vs Tesla & Westinghouse championing AC)

1935 Public Utility Holding Act of 1935



Taylor Swift (2006)

Picture to Burn

Our Song

Insull Era

Pacific Gas & Electric

- 1904 Western Power Co
- 1905 PG&E (California Gas & Electric and SF gas & Electric)
- 1912 Public Utilities Act of 1912
- 1925 Great Western acquired by North American Company
- 1930 Railroad Commission approves PG&E acquisition of Great Western



Electric Industry

- War of the Currents (Edison championing DC vs Tesla & Westinghouse championing AC)
- 1935 Public Utility Holding Act of 1935

The Electrification Era is the Fearless era of Taylor Swift

Electric Industry



1933 formation of the Tennessee Valley Authority and Bonneville Power Administration

1936 Rural Electrification Act

1979 Three Mile Island accident

Fearless



Love Story

You Belong With Me

We Were Happy

Electrification Era

Pacific Gas & Electric

- 1946 CPUC replaces Railroad Commission
- 1952 PG&E awarded Charles A Coffin Award most ambitious expansion effort ever undertaken in the industry.
- 1968 San Onofre SCE and SG&E collaboration



Electric Industry

- 1933 formation of the Tennessee Valley Authority and Bonneville Power Administration
- 1936 Rural Electrification Act
- 1979 Three Mile Island accident

The Efficiency Era is the Folklore era of Taylor Swift

Electric Industry



- 1973 Oil Embargo
- 1977 Jimmy Carter's Sweater Speech
- 1992 Energy Policy Act

Folklore



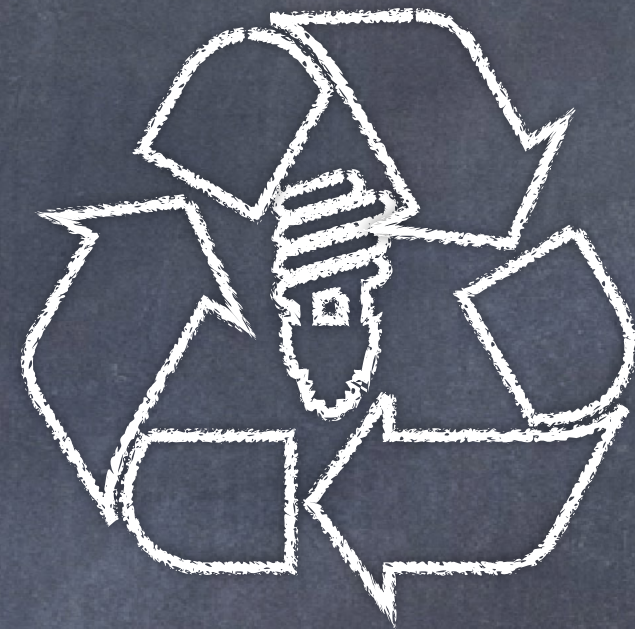
- the last great american dynasty
- cardigan
- this is me trying

Efficiency Era

Pacific Gas & Electric

1985 Diablo Canyon finished
PG&E

1991 California rates were 50
percent above the national avg



Electric Industry

1973 Oil Embargo

1992 Energy Policy Act

The Deregulation Era is the Speak Now era of Taylor Swift

Electric Industry



1978 PURPA stimulates domestic energy production by seeding a nascent wholesale electricity market by encouraging companies other than utilities to build wind solar or gas plants.

1992 Energy Policy Act

2001 Enron: The smartest guys in the room

13

Sparks Fly

Mine

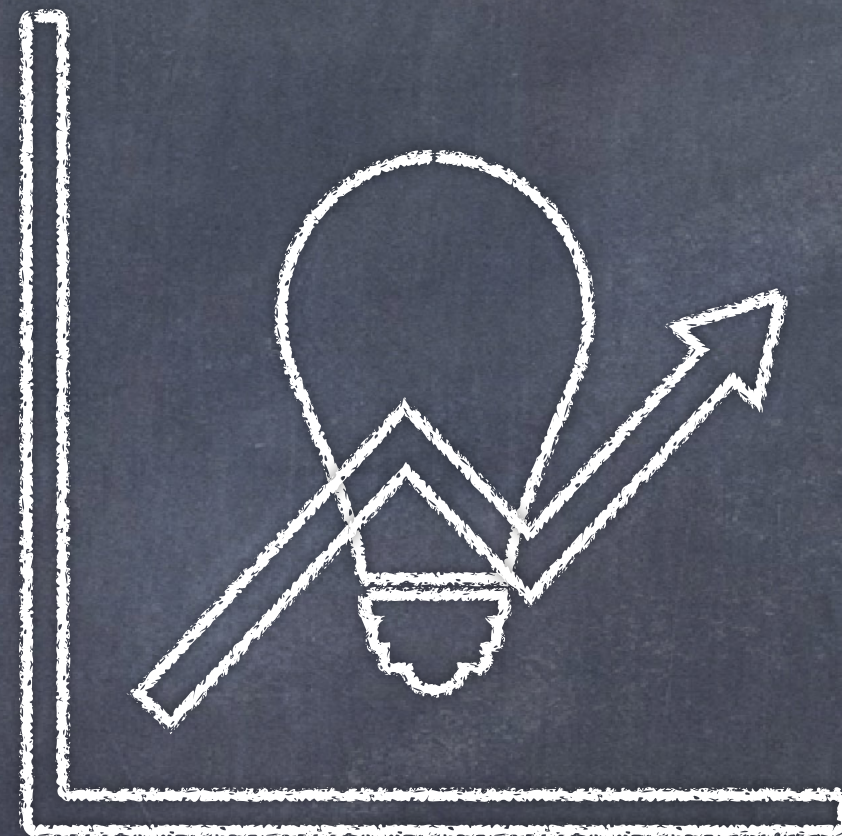
Better Than Revenge

Speak Now

Deregulation Era

Pacific Gas & Electric

- 1991 California rates were 50 percent above the national avg.
- 1996 CA Deregulation bill passed
- 1997 Enron buys PGE in Oregon
- 1998 March power exchange began processing trades
- 2000 power becomes much pricier



Electric Industry

- 1978 PURPA stimulates domestic energy production by seeding a nascent wholesale electricity market by encouraging companies other than utilities to build wind solar or gas plants.
- 1992 Energy Policy Act
- 2001 Enron: The smartest guys in the room

The Power Crisis Era is the Midnights era of Taylor Swift

Electric Industry



- 2000 - 2001 Western Energy Crisis
- 2003 Northeast Blackout
- 2005 Energy Policy Act

Midnights



- Anti-Hero
- Lavender Haze
- You're On Your Own, Kid
- Vigilante \$#!T
- Bejeweled
- Karma

Power Crisis Era

Pacific Gas & Electric

- 2000 (June) Heat wave PG&E cuts power to customers rolling blackouts
- 2000 (Fall) Utilities running out of money to purchase power
- 2001 (Jan) Enron traders/blackouts/SCE and PG&E default on power purchases
- 2001 (April) PG&E files for bankruptcy protection



Electric Industry

- 2000 - 2001 Western Energy Crisis
- 2003 Northeast Blackout
- 2005 Energy Policy Act

The Energy Independence Era is the Reputation era of Taylor Swift

Electric Industry



- 2005 Energy Policy Act
- 2008 U.S. Shale Revolution
- 2009 American Recovery and Reinvestment Act
- 2020 FERC Order 2222
- 2022 Inflation Reduction Act

Reputation



- End Game
- Delicate
- Don't Blame Me
- This Is Why We Can't Have Nice Things
- Dancing With Our Hands Tied
- Look What You Made Me Do

Energy Independence Era

Pacific Gas & Electric

- 2002 Senate Bill 1078 establishing Renewable Portfolio Standard (RPS)
- 2015 SB350. Renewable energy target raised to 50% by 2030
- 2022 SB 1030. Requires 90% renewable energy and zero-carbon electricity by 2035, 95% by 2040 and 100% by 2045



Electric Industry

- 2005 Energy Policy Act
- 2008 U.S. Shale Revolution
- 2009 American Recovery and Reinvestment Act
- 2022 Inflation Reduction Act

The Global Era is the Red era of Taylor Swift



Electric Industry

- 2018 Corpus Christi Liquefied Natural Gas (LNG) terminal begins exporting
- 2019 Freeport LNG terminal export capability became operational
- 2021 February Texas Uri
- 2021 June heat dome in Pacific Northwest
- 2022 Russian Invasion of Ukraine



Red

- I Knew You Were Trouble
- We Are Never Ever Getting Back Together
- Everything Has Changed (feat. Ed Sheeran)

Global (Warming) Era

Pacific Gas & Electric

- 2014 Bark Beetle and Drought
- 2017 Santa Rosa fire
- 2018 PG&E's first Public Safety Power Shutoff
- 2018 Sierra Nevada deadliest wildfire in CA history
Paradise 84 ppl burned to death
- 2019 (January) PG&E files for bankruptcy protection
- 2020 (June) PG&E pleads guilty to 84 counts of involuntary manslaughter
- 2021 Dixie Fire → "bury the lines"



Electric Industry

- 2018 Corpus Christi Liquefied Natural Gas (LNG) terminal begins exporting
- 2019 Freeport LNG terminal export capability became operational
- 2021 February Texas Uri
- 2021 June heat dome in Pacific Northwest
- 2022 Russian Invasion of Ukraine

The eras of the electric sector as Taylor Swift albums



Insull era



Electrification era



Efficiency era



Deregulation era



Power Crisis Era



Energy
Independence era



Global era



Taylor Swift
(2006)



Fearless



Folklore

13

Speak Now



Midnights



Reputation



Red

Crystal's Timeline (Phone Notes)

- 1904 western Power Co
- 1905 PG&E (California Gas & Electric and SF gas & Electric)
- 1912 public Utilities Act of 1912
- 1925 Great Western acquired by North American Company
- 1930 Railroad Commission approves PG&E acquisition of Great Western
- 1935 Black president
- 1946 CPUC replaces Railroad Commission
- 1952 PG&E awarded Charles A Coffin Award most ambitious expansion effort ever undertaken in the industry.
- 1968 San Onofre SCE and SG&E collaboration
- 1978 PURPA stimulate domestic energy production seeded a nascent wholesale electricity market by encouraging companies other than utilities to build wind solar or gas plants. Law required utilities to buy them roughly what it would have cost them to produce it.
- 1978 Three mile island
- 1985 Diablo Canyon finished PG&E
- 1991 California rates were 50 percent above the national avg. that gave way to deregulation
- 1992 Energy Policy Act made it easier for companies other than utilities to build and operate power plants
- 1990s Deregulation
- 1996 CA Deregulation bill passed
- 1997 Enron buys PGE in Oregon
- 1998 March power exchange began processing trades
- 2000 power becomes much pricier
- 2000 June heat wave PG&E cuts power to customers rolling blackouts
- 2000 fall utilities running out of money to purchase power
- 2000-2001 power crisis
- 2001 Jan Enron traders/blackouts/SCE and PG&E default on power purchases/Davis declares state of emergency CA Dept of Water Resources purchases power on behalf of utilities
- Gray Davis 1999-2003
- Schwarzenegger 2003-2011
- 2017 Santa Rosa fire
- 2018 Sierra Nevada deadliest wildfire in CA history Paradise 84 ppl burned to death
- 2019-2020 Bill Johnson
- 2021 Patti Poppe
- 2021 February Texas uri
- 2021 June heat dome
- 2021 Dixie Fire bury the lines