



Joint Investor-Owned Utilities 2020 PSPS Workshop

PSPS: Reducing the Scale, Scope and Frequency

March 29, 2021

Late Season RFWs & PSPS



In 2020, there were 4 late-season RFW/PSPS events out of a total of 11 RFW/PSPS events for the season

Date	Thu 11/26	Fri 11/27	Sat 11/28	Sun 11/29	Mon 11/30	Tue 12/1	Wed 12/2	Thu 12/3	Fri 12/4	Sat 12/5	Sun 12/6	Mon 12/7	Tue 12/8	Wed 12/9	No RFWs 12/10 through 12/22	Wed 12/23	Thu 12/24
RFW	█						█					█					█
FPI	█																

Red Flag Warning 11/26-11/28

- Top 20 Average Gusts: 48 mph
- Wind Speed Records: 0
- Peak Gust: **56 mph**
- Stations Reaching 95%: 75
- Station Reaching 99%: 8
- PSPS Customers Notified: 2,739
- PSPS Customers affected: **0**
- CRCs Opened: 0

Red Flag Warning High Wind Warning 12/2-12/4

- Top 20 Average Gusts: 71 mph
- Wind Speed Records: 43
- Peak Gust: **94 mph**
- Stations Reaching 95%: 170
- **Station Reaching 99%: 126**
- PSPS Customers Notified: 95,000
- PSPS Customers affected: **73,000**
- CRCs Opened: 10 (2,667 cars)

Red Flag Warning High Wind Warning 12/7-12/8

- Top 20 Average Gusts: 59 mph
- Wind Speed Records: 2
- Peak Gust: **82 mph**
- Stations Reaching 95%: 145
- Station Reaching 99%: 67
- PSPS Customers Notified: 50,483
- PSPS Customers affected: **15,300**
- CRCs Opened: 6 (415 cars)

Red Flag Warning 12/23-12/24

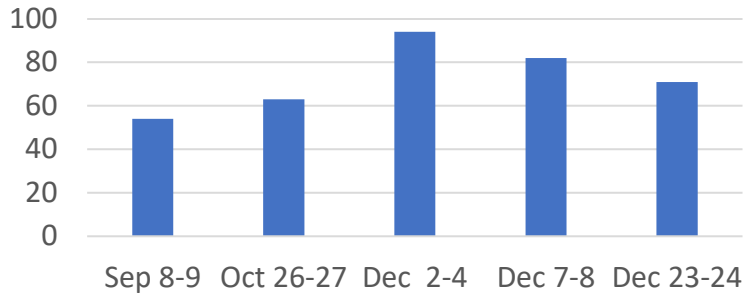
- Top 20 Average Gusts: 57 mph
- Wind Speed Records: 2
- Peak Gust: **71 mph**
- Stations Reaching 95%: 152
- Station Reaching 99%: 66
- PSPS Customers Notified: 30,394
- PSPS Customers affected: **6,797**
- CRCs Opened: 4 (59 cars)

2020 PSPS Event Summary



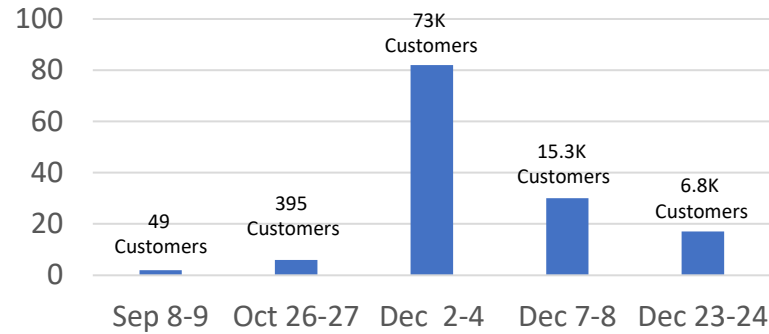
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Peak Winds



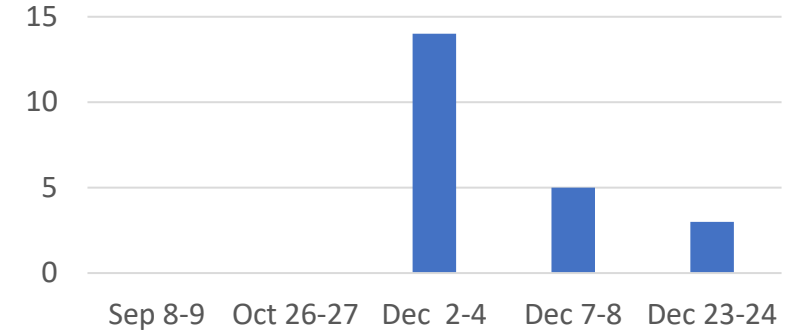
■ Peak Winds (MPH)

Circuit Segments De-Energized



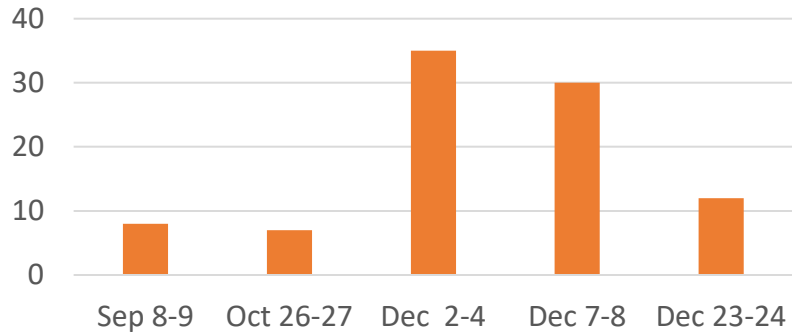
■ Number of Circuit Segments De-Energized

Damage/Hazard Found



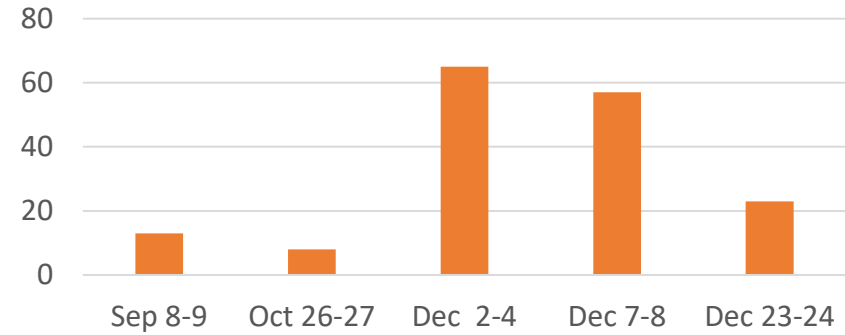
■ Damage/Hazard Found

Average Outage Duration



■ Hours

Longest Outage Duration



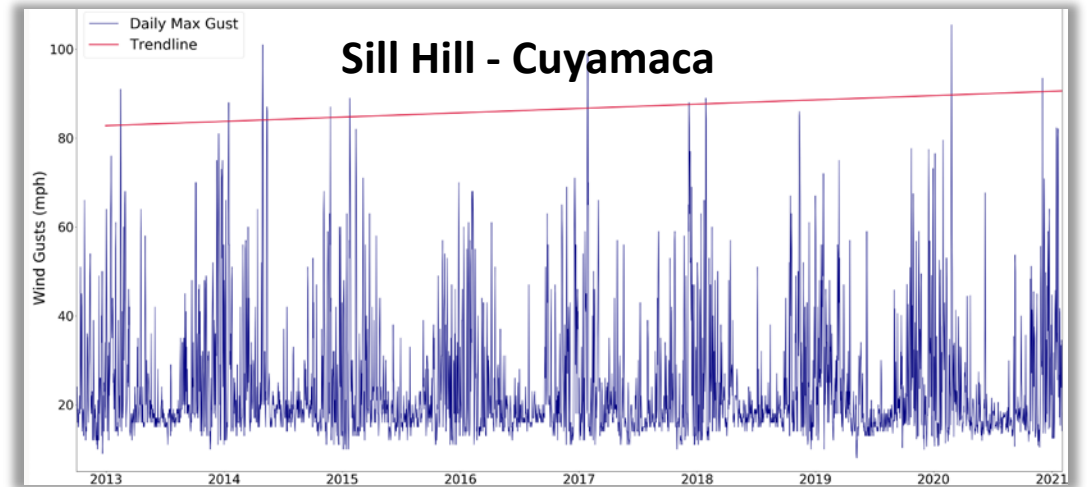
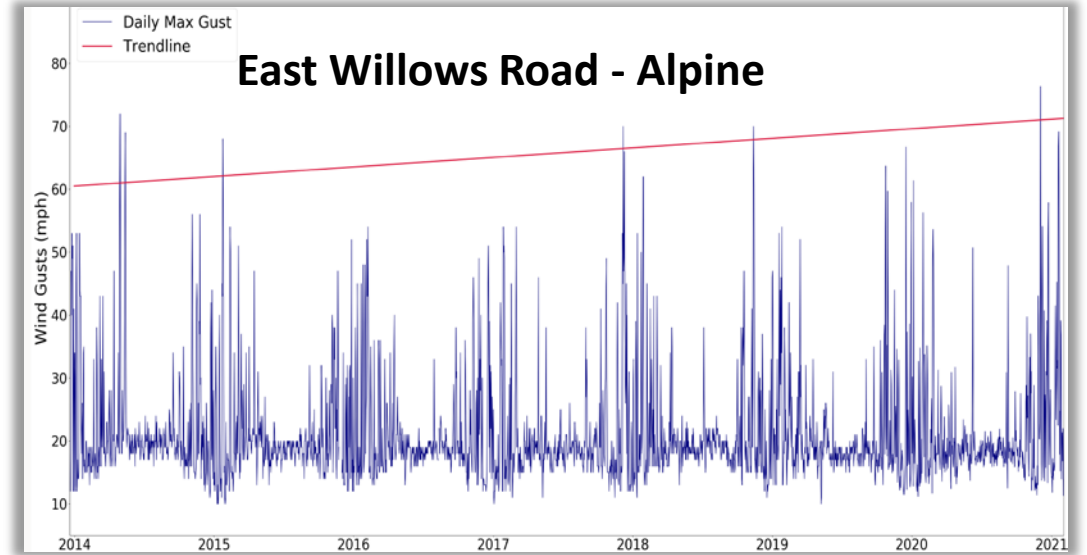
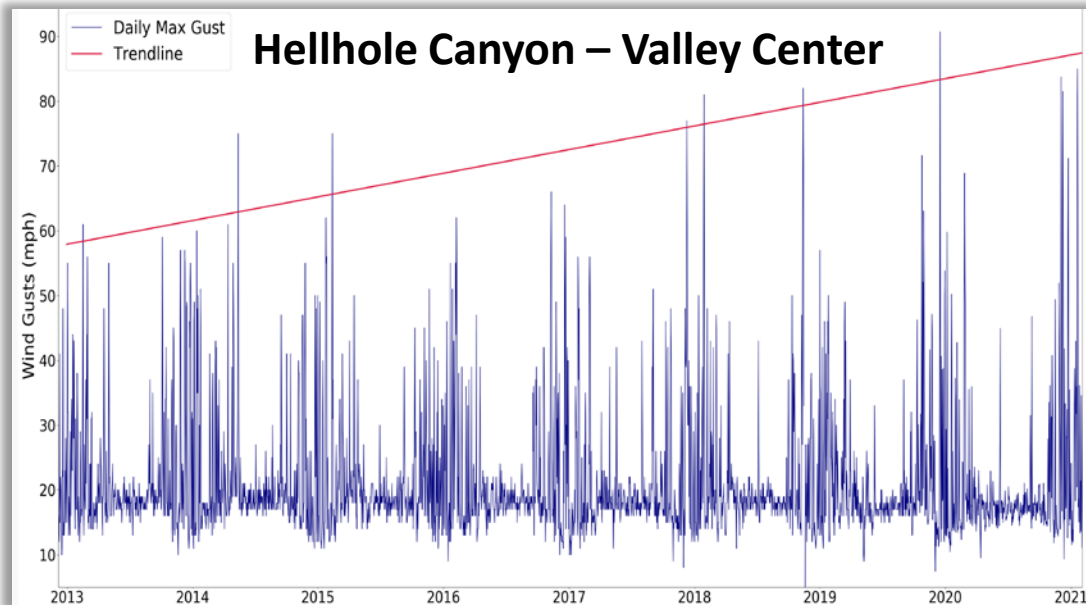
■ Hours

Wind Data Over Time



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2013-2021 weather data collected from the SDG&E weather network indicates an **increase in occurrences** of high wind events over the last several years.




2020 PSPS Mitigation Customer Impact Reduction



Generator Programs

- Generator Grant Program – 1,334 units
- Generator Assistance Program – 2,284 customer rebates
- Whole Facility Generators – 80 customers



Microgrid – 5 Sites

- Ramona Air Attack Base, Butterfield Ranch, Shelter Valley, Cameron Corners, Julian Town Center – 348 customers
- Renewable options beginning in 2021



Weather Station

- 30 new weather stations
- 30-second reads at 210 weather stations
- New geospatial tools and PSPS dashboard



Sectionalizing Device

- 23 new devices – 5,773 customers
- Helped divide circuits into smaller segments
- Reduces customers impacts from PSPS



Load Transfer - 7 Circuits

- Four communities – 156 customers
- Rincon Reservation, Viejas Reservation, Del Mar, San Clemente



2020 PSPS Customer Impact Reduction: Generators and Microgrids

- **1,334** portable battery-powered generators to Medical Baseline customers
- **2,284 generator purchase** rebates to customer in HFTD
- **80** Whole-Home Generators
- Emergency Ops. Center: PSPS generator to Alpine mental health facility
- **5 Microgrids** enabled to keep communities energized (non-renewable, renewable options online beginning in 2021)
 - Ramona Air-Attack Base
 - Cameron Corners
 - Butterfield Ranch
 - Shelter Valley
 - Julian Town Center



2020 PSPS Customer Impact Reduction: Weather Technology & Load Transfer/Switching



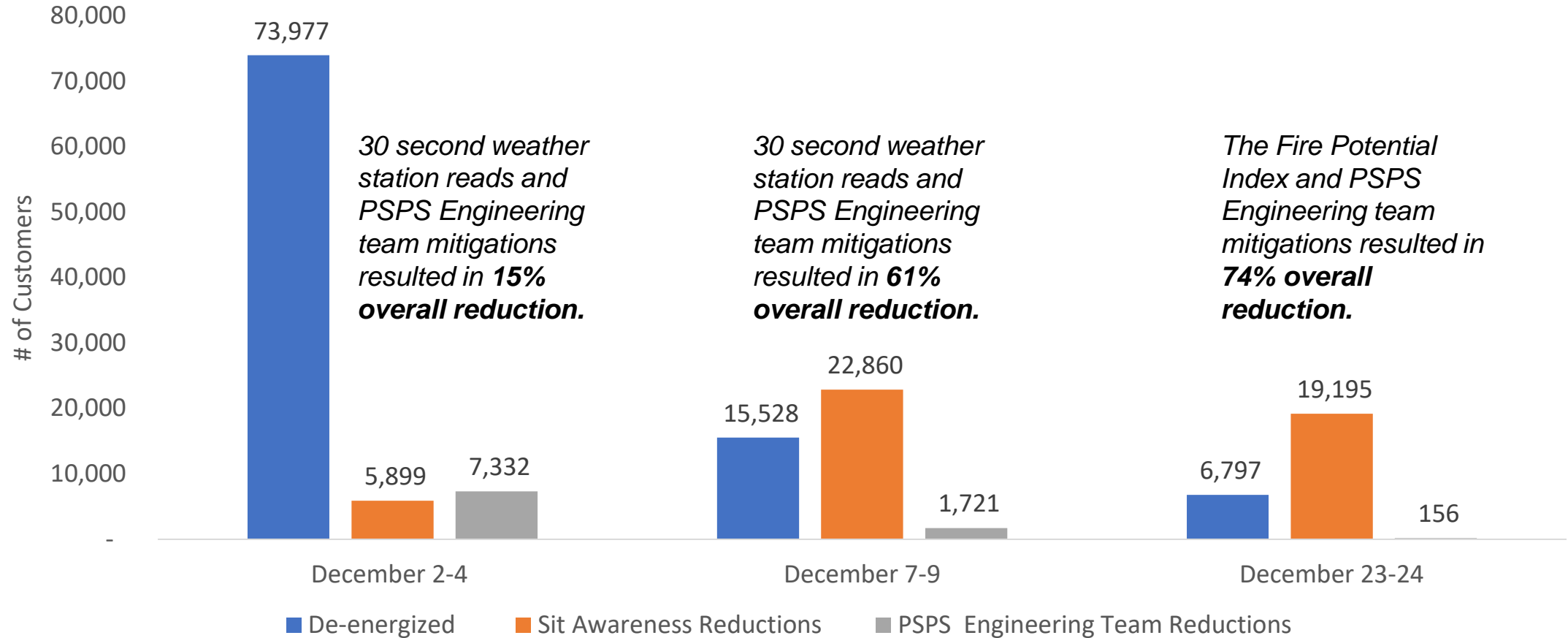
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- **New weather technology**
 - 30 new weather stations
 - 30-second weather data available at over 210 weather stations
 - New PSPS dashboard and geospatial tool to monitor weather conditions
- **Fire Potential Index**
 - FPI normally used to inform operational decisions by areas in our service territory
 - Use it to also reduce PSPS impacts
- **New load transfer/localized switching plans**
 - Seven circuits
 - Four communities



2020 PSPS Customer Impact Reduction

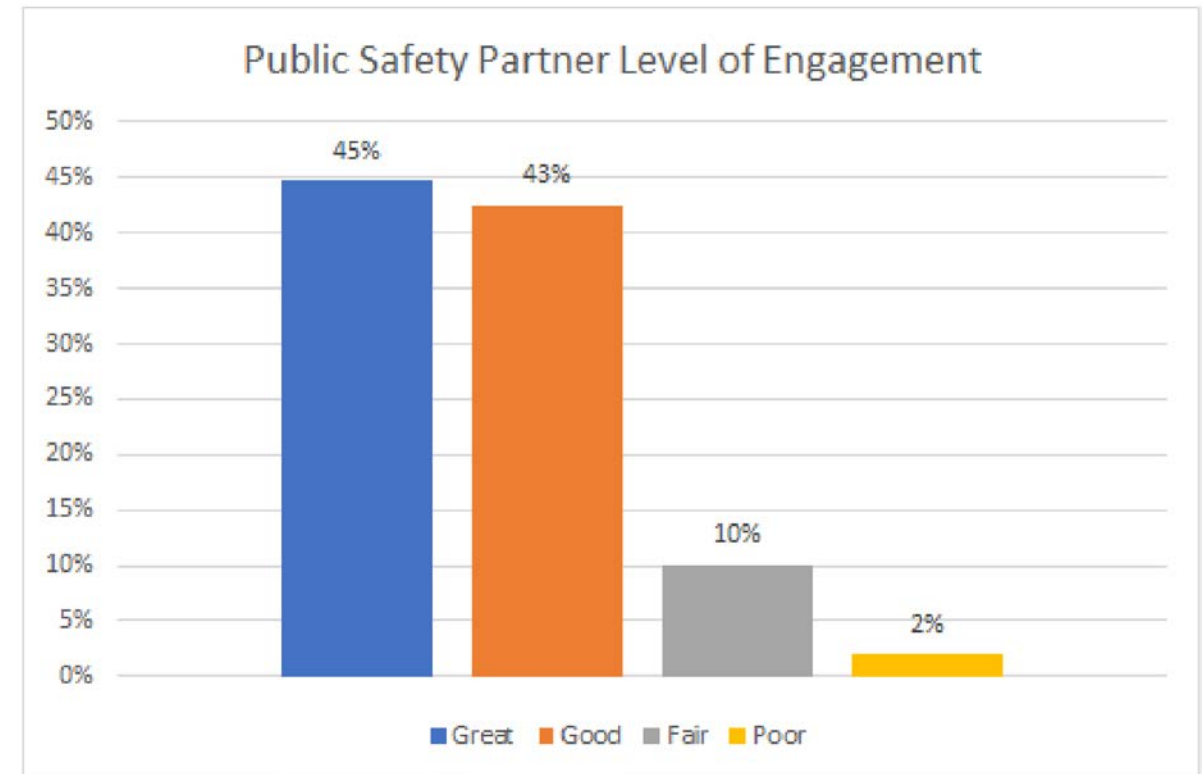
Estimated PSPS Reductions in 2020 Events



2020 Fire Season: Customer Communications and Community Support



- In-Event Customer Communications
 - More than 10,000 PSPS App downloads
 - 31 roadside electronic message signs deployed
 - Notifications available in eight languages; this will be expanded to 22 languages in 2021
- Vulnerable Customer Communications
 - 700+ community orgs reached through County OES/Partner Relay
 - 200 Community Based Partner orgs amplified messaging
- Public Safety Partner Notification
 - 2,000+ touchpoints with public safety partners per event
 - 88% surveyed public safety partners satisfied with SDG&E communication



2020 PSPS Access and Functional Needs Support



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SDG&E partners with regional & statewide organizations to identify and offer support to customers with access and functional needs during PSPS events

Available Services



Readiness Support



Enhanced Notifications



Accessible Transportation



Hotel Stays



Food Delivery



Resiliency Items



Battery Back-up Programs



Welfare Checks



2021 PSPS Impact Reduction



WMP Program	2021 Number of Locations	2021 Customer PSPS Impact Reduction
PSPS Sectionalizing	10	5,000
Fixed Backup Power	413	413
Resiliency Grant Programs	~	2,000
Resiliency Assistance Programs	~	1,250
Microgrids	6	578
Undergrounding	9	1,127
Total		11,000*

*Weather events will dictate the actual number of customers reduced by the project