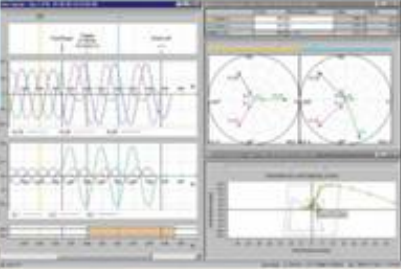


Smart Grid Division

Distribution Feeder Automation

Solutions for Power Utilities



**SDFA
SDR and 7SC80
References Customers:**

Siemens Industry, Inc.



1. Introduction

Siemens is pleased to provide this approved S DFA information.

The Siemens S DFA solution is a “ready to install” decentralized system of 7SC80 controllers integrated into primary switchgear to form feeder automation systems. The decentralized system architecture with hardened controllers provides best in class availability. This system architecture does not require a PC to operate and is thus almost maintenance free. The system provides a very scalable structure that can address very small 2 source transfer schemes (**ATS**) to very complex multi switch and multi source transfer applications. The 7SC80 controllers can be programmed to perform complex **FLISR** applications or just to perform **recloser control functions**. The 7SC80 “Smart Grid Controller” forms the basis of the S DFA system. This controller was developed for the automation of distribution feeders and can be applied on almost any automated primary switch. The 7SC80 is thus the ideal platform to deploy on Reclosers, Load Break Switches, Pad Mount Switches, Underground Switches and Feeder Circuit Breakers.

YouTube Testimonials:

[S DFA-FLISR](#)

[S DFA-ATS](#)



Control Panel



Controller HMI

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2. References

SDFA-FLISR Feeder 2 Project

A&N Electric Cooperative, Virginia, USA

Customer Challenge

- A&N Electric's distribution network contained a critical commercial load that was manually controlled.
- A fault in the connected feeder could lead to a long outage before the system could be reconfigured to supply power to the critical loads from an alternate substation source.

Siemens Solution	Customer Benefits
<ul style="list-style-type: none"> SDFA-FLISR using IEC61850 RuggedMAX WiMAX Communication High-speed Fault Location, Isolation & Service Restoration, Load Management, Source Transfer, Variable Normally Open Point & jDiff protection SICAM PAS HMI and engineering station update SIPROTEC 7SJ64 & 7SC80 controllers SDR Reclosers and ABB circuit breakers 	<ul style="list-style-type: none"> Secure Supply to Critical Loads. Minimized outage time and dispatch expenses through remote control. Improve customer service along 16 mile feeder Simplified Protection System

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SDFA-FLISR Feeder 1 Project

Wake Electric Cooperative, NC, USA

Customer Challenge

- Wake Electric's distribution network contained a critical commercial load that was manually controlled.
- A fault in the connected feeder could lead to a long outage before the system could be reconfigured to supply power to the Radio tower owned by WCPE from an alternate substation source.

Siemens Solution	Customer Benefits
<ul style="list-style-type: none"> SDFA-FLISR using IEC61850 RuggedMAX WiMAX Communication High-speed Fault Location, Isolation & Service Restoration, Load Management, Source Transfer, Variable Normally Open Point & jDiff protection SICAM PAS HMI and engineering station update SIPROTEC 7SC80 controllers SDR and COOPER reclosers 	<ul style="list-style-type: none"> Secure Supply to Critical Load. Minimized outage time and dispatch expenses through remote control. Improve customer service along 6 mile feeder Simplified Protection System WiMAX backhaul capability from 9 substations

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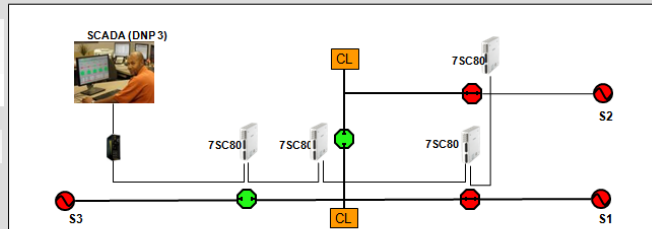
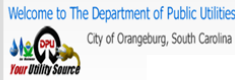
Contact: Don Bowman Tel: +1(919) 863-6487 don.bowman@wemc.com

SDFA-ATS Project City Of Orangeburg, SC, USA



Customer Challenge

- The City Of Orangeburg distribution network contained a critical commercial load that was manually controlled.
- A loss in power source in the connected feeder could lead to a long outage before the system could be reconfigured to supply power to the a Albemarle Pharmaceutical Plant from an alternate substation source. The plant can not tolerate a power interruption in excess of 100 ms.



Siemens Solution

- 3 Source SDFA-ATS using IEC61850
- Direct Fiber Communication
- High-speed Fault Source Transfer < 100 ms
- SIPROTEC 7SC80 controllers
- SDR Reclosers

Customer Benefits

- Cost-effectively Secured Supply to Critical Load.
- SCADA integration and control to system through DNP links to 7SC80 controllers.

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SDFA & 7SC80 Users Include

