

From: Florio, Michel Peter  
Sent: 9/13/2011 9:52:07 PM  
To: Dasso, Kevin (/O=PG&E/OU=CORPORATE/CN=RECIPIENTS/CN=KXD4);  
Cherry, Brian K (/O=PG&E/OU=CORPORATE/CN=RECIPIENTS/CN=BKC7)  
Cc: Bottorff, Thomas E (/O=PG&E/OU=CORPORATE/CN=RECIPIENTS/CN=TEB3)  
Bcc:  
Subject: RE: Cornerstone YFA Operation

Thank you for the quick response! Mike

**From:** Dasso, Kevin [mailto:KxD4@pge.com]  
**Sent:** Tuesday, September 13, 2011 9:24 PM  
**To:** Cherry, Brian K; Florio, Michel Peter  
**Cc:** Bottorff, Thomas E  
**Subject:** RE: Cornerstone YFA Operation

Brian and Mike,

The target circuits for this design are in urban and suburban areas because they are more interconnected. The design is more costly and difficult in rural areas. The current project we have underway is to automate at least 400 circuits at a cost of \$180M by the end of 2013. Our original proposal was to automate 1,800 of our total 3,100 circuits at an estimated cost of about \$600M plus additional costs to upgrade circuit ties to allow the automatic reconfiguration without overloading equipment. The actual cost to upgrade circuits is highly dependent on overhead versus underground circuitry, existing circuit ties with available capacity, the penetration of existing substation automation and the telecommunications infrastructure. The technology we selected allows us to use more of the existing line equipment, traditional automation (SCADA) and the telecommunications system to reduce the upgrade cost.

Kevin

**From:** Cherry, Brian K  
**Sent:** Tuesday, September 13, 2011 6:41 PM  
**To:** 'mike.florio@cpuc.ca.gov'; Dasso, Kevin  
**Cc:** Bottorff, Thomas E  
**Subject:** Re: Cornerstone YFA Operation

I think the answer on the cost side is in Italian "il dipende". It's not a pilot but a new approach to circuit design for us as we move toward automation (which was the basis of Cornerstone).

Kevin - can you give Mike an overview of this type of circuit and the average cost ? Could you extrapolate to do it for the whole system or in critical areas ?

**From:** Florio, Michel Peter [<mailto:mike.florio@cpuc.ca.gov>]  
**Sent:** Tuesday, September 13, 2011 06:37 PM  
**To:** Cherry, Brian K  
**Subject:** RE: Cornerstone YFA Operation

Cool! How much does it cost to upgrade a circuit in this manner? Was this just a pilot project or is it in the works to expand systemwide? Mike

**From:** Cherry, Brian K [<mailto:BKC7@pge.com>]  
**Sent:** Tuesday, September 13, 2011 4:19 PM  
**To:** Florio, Michel Peter  
**Subject:** FW: Cornerstone YFA Operation

FYI. Remember Cornerstone ? What would have been a major outage of several thousand customers turned into a momentary interruption of a few minutes. Thought you'd like to hear about this - it's going to be the future for us.

**From:** Dasso, Kevin  
**Sent:** Tuesday, September 13, 2011 1:42 PM  
**To:** Cherry, Brian K; Hughes, John (Reg Rel); Marre, Charles  
**Subject:** FW: Cornerstone YFA Operation

Brian, John and Chuck,

Just thought you might like to know that we had an outage yesterday on one of the circuits where we have the Cornerstone automation technology installed. The system worked exactly as intended. As described below, the original event caused the circuit breaker to interrupt service to 2,294 customers. In less than two minutes, power was automatically restored to the 1,774 customers in the unaffected areas.

Kevin

**From:** [Redacted]  
**Sent:** Tuesday, September 13, 2011 11:58 AM  
**To:** [Redacted]  
**Cc:** Dasso, Kevin; Anderson, Barry  
**Subject:** Cornerstone YFA Operation

[Redacted]

Here is the information I promised you regarding yesterday's [Redacted] outage and subsequent Yukon feeder automation operation. As noted in the outage log below, the event occurred at 09:55 on the [Redacted] 2225 circuit. A wire down incident caused the substation breaker to operate interrupting service to 2294 customers. Once the circuit was locked out, the Yukon system began working to restore power and automatically picked up 1774 customers onto the [Redacted] 2226 circuit by 09:57, thus converting what would have been a sustained outage for these customers to a momentary event.

In the midst of the switching, the Yukon system detected that one of the line reclosers that was part of this scheme had a "health" issue (was not operating properly) and correctly utilized an adjacent switching device to restore the customers.

Attached is a single line drawing of this scheme for your reference.

Please let me know if you have any questions or need further details.

[Redacted]

**From:** [Redacted]  
**Sent:** Tuesday, September 13, 2011 7:28 AM  
**To:** [Redacted]  
**Cc:**  
**Subject:** RE: YFA Operation

[Redacted]

Below is the 9/12 - ILIS report on the [Redacted] outage.

The momentary and sustained components of the outage were properly recorded. A downed wire occurred at 09:55 am on the [Redacted] 2225 breaker zone. The 2225 station breaker properly cleared the fault, resulting in a lockout condition; subsequently, 174 of 2294 customers were restored within 147 seconds, as a result of a YFA restoration, transferring customers from [Redacted] 2225 to [Redacted] 2226 circuit.

[Redacted]

