



POWER OUTAGES

San Francisco
24 July
2007

New York
27 June
2007

Barcelona
23 July
2007


Costa Rica
19 April
2007

Columbia
26 April
2007

blackout

Watch

Analysis of system power outages can help us learn and avoid similar events in the future. However, it is very difficult in most of the cases to find out what exactly happened. Please e-mail to http://editor@pacw.org if you have some information related to the blackouts mentioned here.



Macedonia,
Albania, Greece,
25 July
2007

Korea
3 August
2007

■ Approximately 40,000 customers in San Francisco's Financial District were affected by an outage that occurred after transmission breakers at the company's Martin Substation opened. The initial event occurred at approximately 13:30, and power

was restored to all affected customers by 15:30.

■ Nationwide blackout at 20:10 local time started by the loss of the Arenal-Canas transmission line and affected more than 4 million people in Costa Rica. Power restoration started gradually at 21:45.

■ A blackout that affected more than 80 % of Columbia was triggered at 9:58 by the loss of the 230 kV Torca substation in Bogota due to human error during bus switching. Power was restored by 14:30 local time.

■ About 136,700 customers were left without power in New York City during the height of the outage caused by lightning strike in the vicinity of a Queens substation at 15:42 local time. It affected communication equipment that prompted circuit breakers on multiple transmission lines to open,

causing the service interruption. Power was restored in approximately 48 minutes.

■ At 11:00 Barcelona suffered a near-total blackout blamed on cable that fell in Collblanc substation, causing a chain-reaction failure in six other substations, including fire in one of them. Several areas remained without electricity for more than 78 hours.

■ Albania, parts of Macedonia and Greece were without power as transmission lines struggled with temperatures of over 40 degrees Celsius and an increased load from air conditioners.

■ A power outage caused by a faulty transformer occurred at Samsung's Giheung complex near Seoul and disrupted production of flash memory, DRAM and logic chips. Losses are estimated at around \$54 million.

*Time and
location of the
System & Power
Disturbances in
2007*