

Standby generator

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A **standby generator** is a back-up electrical system that operates automatically.^[1] Within seconds of a utility outage an automatic transfer switch senses the power loss, commands the generator to start and then transfers the electrical load to the generator. The standby generator begins supplying power to the circuits.^[2] After utility power returns, the automatic transfer switch transfers the electrical load back to the utility and signals the standby generator to shut off. It then returns to standby mode where it awaits the next outage. To ensure a proper response to an outage, a standby generator runs weekly self-tests. Most units run on diesel, natural gas or liquid propane gas.^[3]



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Automatic standby generator systems may be required by building codes for critical safety systems such as elevators in high-rise buildings, fire protection systems, standby lighting, or medical and life support equipment.^[4] Residential standby generators are increasingly common, providing backup electrical power to HVAC systems, security systems, and household appliances such as refrigerators, stoves, and water heaters.

See also

- Diesel generator
- Electric generator
- Emergency power system
- Uninterruptible power supply

References

1. Robert B. Hickey *Electrical Construction Databook*, McGraw Hill, 2002 ISBN 0-07-137349-7, Chapter 14
2. Jerry C. Whitaker. *AC Power Systems Handbook, Third Edition*. p. 325. ISBN 0849340349.
3. Zachariah Amela (December 8, 2014). "Backup Power for the Individual and Volunteer, Part I: Generators". Retrieved January 6, 2015.
4. James E. Allen MSPH PhD CNHA (2010). *Nursing Home Federal Requirements: Guidelines to Surveyors and Survey Protocols, 7th Edition*. Springer Publishing Company. p. 304. ISBN 0826107907.

External links

- Popular Mechanics: How to Buy the Right Backup Generator for Your Disaster & Budget (<http://www.popularmechanics.com/science/4281042>)

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