



Building Grid Technologies



DC Microgrid: Significant Advantages Over Conventional AC Systems

Unique technology that transforms any state of the art conventional AC technology to be more efficient and reliable.

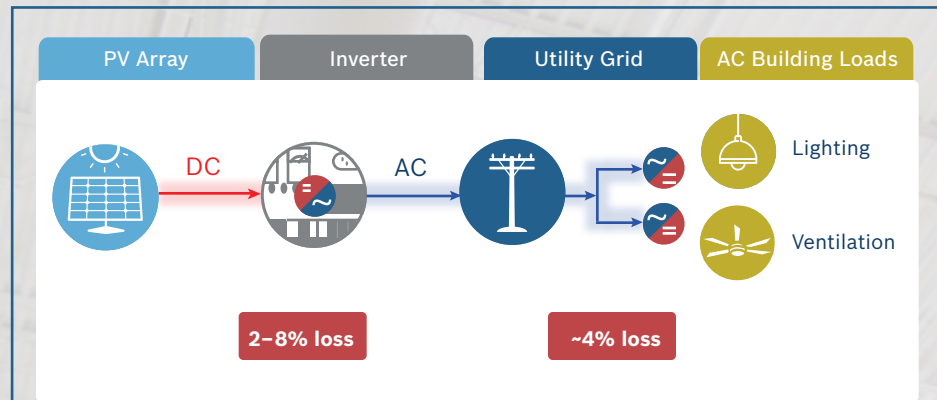
Comprehensive DC Microgrid solution that incorporates solar PV and other energy sources to provide cost effective, high quality, reliable and resilient DC power to major fixed energy efficient loads in commercial facilities.



California Energy Commission awarded **Bosch-led team \$2.8 million** to demonstrate highly **efficient, Commercial scale DC energy grid**

DC Microgrid vs. Conventional AC System

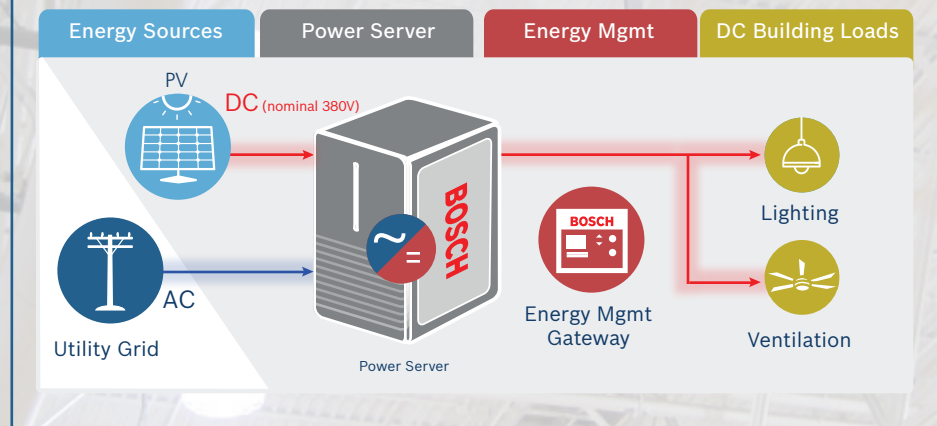
- 7–10% average higher utilization of on-site generation
- Lower energy losses
- Higher reliability
- Resiliency during grid outages
- Minimizes grid interconnection
- Emergency lighting support
- Lower investment
- Significant reduction in greenhouse gas emissions



Bosch DC Microgrid

VS

Conventional AC System



Value & benefit of DC Microgrid further increased with the **Bosch Energy Management Gateway**

- Manages load functionality
- Manages interactions with PV, energy storage and other energy sources
- Maximizes PV energy utilization in the DC loads and storage to minimize or eliminate the need for grid interactions
- Peak Shaving, Demand Charge, and Demand Response management
- Enhances grid reliability

Planned Expansion to other DC Sources & Loads:

