



## **Energy efficiency: Use less energy and save money**

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Engineers and consultants often have different definitions of "energy efficiency," yet the term can be summed up in one quick sentence - energy efficiency is the ability to provide the same services for less energy. At Bright Power, we audit and retrofit existing buildings in order to help our clients save energy and reduce operating costs. The goal in energy efficiency retrofits is to provide the same or higher level of comfort, health, and productivity while decreasing the total cost of operation for the customer. As a result, it is especially important to size heating, cooling, and domestic hot water plants to provide maximum comfort without oversizing these systems. As an example, boilers in New York City are typically oversized. This is leftover from the days of cheap fuel. Proper system sizing is only one major area where it is possible to save both operating and capital costs. Similarly, it is important to analyze lighting levels to make sure that spaces are not being over-lit; either overly bright or lit during hours the spaces are not being used.

Every building that we work with is a creative avenue in which we can integrate technologies that have been proven to reduce costs while maintaining the longevity of the building. Successful energy efficiency firms navigate local, state, and federal programs to help building owners reduce capitalization costs. Recently, Bright Power partnered with en-Power Group to conduct an investment-grade energy audit of a 16-story, 166-unit market-rate apartment building in Manhattan's Upper East Side. This luxury facility saw a reduction of 45% in energy use after updating the heating and cooling plant, heating controls and lighting systems. Bright Power was a key player in facilitating \$115,000 from the New York State incentive program, reducing payback to just over six years. Annual energy savings for the first year after the retrofit was completed is an impressive \$216,000 per year.

Savings of this magnitude can only be achieved by instituting an energy efficiency plan that determines the needs of each energy consuming system and then integrates optimal technologies to meet these needs. In the end, everyone can agree that six figure annual savings are pretty remarkable, and that Upper East Side luxury building is definitely more energy efficient.

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