

**Steam Business Unit**

# Con Edison District Steam: The Energy Solution for the 21st Century

## Steam...a cost-effective alternative to an on-site boiler plant

Consider this: an energy-efficient, environmentally sound method of heating and cooling buildings that may be less expensive than the cost of operating an on-site boiler plant. Con Edison's district steam energy is reliable. Comfortable. Convenient. We produce district steam at our stations and use conventional fuels such as oil and natural gas, whichever fuel is most competitively priced at the time. And since 46.48% of our district steam is cogenerated, air emissions are lower and steam is cheaper.

We operate at the highest levels of reliability (99.999%). So, as building owners and managers, you can safely count on Con Edison's district steam system. When steam arrives at your building, it's ready to be used and 100% efficient, as compared to natural gas or other fuels, which require conversion. With Con Edison district steam:

- you don't need to burn fuels or store them on site, so your site is more secure and more environmentally sound;
- you don't need boilers, so there is less maintenance and monitoring of equipment; and
- your steam metering station is compact and space-efficient, so you can use the extra space where the boilers would be as revenue-generating storage for your tenants.

If you are considering using oil, consider Con Edison district steam instead. Steam eliminates the need for fuel deliveries, so there are fewer safety and liability concerns for your employees and your building occupants. Of course, fewer fuel deliveries also reduce truck traffic and diesel-truck idling in front of your building, contributing to cleaner air quality and less noise.

Con Edison steam also reduces noise and vibrations inside the building, improving quality of life for your building tenants. Our service allows building operators to manage and control your own indoor environment.

**We can supply Con Edison steam to meet all your heating and cooling needs.**

When considering spending money on your on-site boiler plant, here are some facts you should consider:

### Con Edison Steam

- Reliable, clean, quiet
- High quality and constant pressure
- Capital cost avoidance
- Lower maintenance cost
- Does not require licensed operators
- No on-site redundancy required
- Pay for steam after using it
- Smaller footprint is required for a steam station
- Boiler operating expenses – labor, service contracts, chemical costs, water treatment, and maintenance
- Can use boiler space for other use
- Condensate heat recovery – used to heat domestic water supply
- Environmentally friendly
- No on-site storage means site is safer
- Design flexibility – no smoke stacks and boilers means greater building flexibility

### On-site Boiler Plant

- Less reliable than Con Edison steam
- Requires on-site redundancy
- Periodic maintenance
- Operators around the clock (high-pressure plants)
- Additional costs associated with #6 oil fuel plants
  - Heating of stored oil
  - Fuel oil additives
  - Fuel oil atomization
  - Soot blowing of boiler tubes
- Oil-fired equipment is noisy and can leave traces of oil and soot in the boiler room
- Pay for oil before using it
- Boiler plant installations require much larger space
- Oil delivery service can be interrupted by inclement weather
- Consider hidden charges for all fuel oil plants such as:
  - Oil tank testing costs, oil storage charges
- Environmental risks
  - Oil pumping cost
  - Boiler makeup water & chemical treatment
  - Heating of additional makeup water
  - Flue maintenance and flue draft fan energy
  - Annual inspection

**We can supply Con Edison steam to meet all your heating and cooling needs.**

**Cost/Benefit Analysis**

We would like to help you better understand your energy options. For an assessment to compare using an on-site boiler plant versus Con Edison steam, please contact:

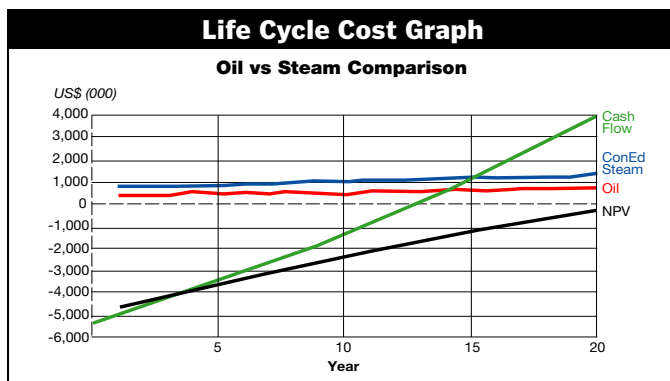
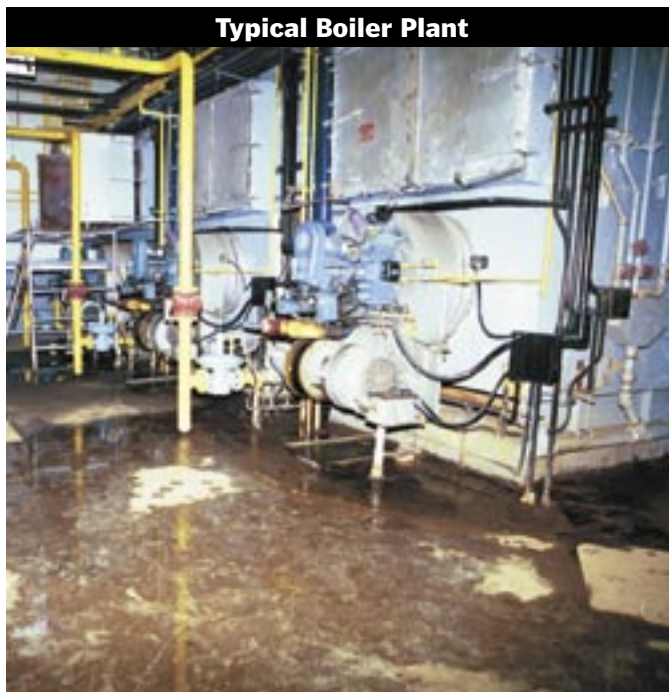
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Con Edison - Steam Business Unit

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Life Cycle Cost Analysis for a recent site: the oil-vs.-steam comparison shows that the oil-fired boiler plant has first-year operating savings of approximately \$350,000 when compared to district steam. However, when the cost of capital for the oil-fired boiler plant is taken into consideration, the net present value (NPV) is still negative after 20 years. The life expectancy of a boiler plant is typically around 20 years.