Building on Steam
May 2, 2007
Con Edison Steam System

59th Street Station

74th Street Station

Ravenswood Station

60th Street Station

East River Station

Hudson Avenue Station

B.N.Y.C.P. Plant
Steam Background

- NYC steam system opened for business in 1882
- Con Edison purchased system in 1936
- Largest district steam system in the U.S.
- Approximately 1,800 customers
- Sendout: ~ 30 billion pounds per year
- More than half of Con Edison’s steam comes from cogeneration plants
- 105 miles of steam mains
Steam Background

• Capacity ~ 12.5 million lbs/hr (MMlb/hr)
• Peak Load ~ 10.5 MMlb/hr
• 625,000 tons of steam AC = 375 MW avoidance on the electric system in summer
• In broad categories, our customers are segmented as follows:
  ▪ Commercial 54%
  ▪ Residential 19%
  ▪ Hospitals 7%
  ▪ Hotels 6%
  ▪ Museums 2%
  ▪ Other 12%
Steam Background

• Steam Usage – Heat, hot water, air conditioning, sterilization, cooking, humidification

• Recent new major customers
  ▪ Hearst Tower
  ▪ Gramercy Park Hotel
  ▪ New York Times headquarters
  ▪ 7 World Trade Center
  ▪ DNA Laboratory at Bellevue Hospital
  ▪ 15 Central Park West

• Invest $70 to $80 million annually into system

• Con Edison’s steam system provides significant environmental benefits to NYC residents & workers, particularly with respect to air quality
Environmental Benefits of Steam (CO₂)

- Con Edison Steam System (Nov. 2005 - Oct. 2006) (> 50% cogeneration) - 117 lb/MMBtu
- Source: AP - 42 (USEPA) Controlled Boilers - Low NOX Burners (Boilers < 100 MMBtu/hr) - 235 lb/MMBtu

Con Edison

Boiler
Environmental Benefits of Steam (NOx, SO2, and PM)

- **Con Edison Steam System** (Nov. 2005 - Oct. 2006) (> 50% cogeneration)
  - NOx: 0.159
  - SO2: 0.149
  - PM: 0.028

- Source: AP - 42 (USEPA) Controlled Boilers - Low NOX Burners (Boilers < 100 MMBtu/hr)
  - NOx: 0.239
  - SO2: 0.156
  - PM: 0.042

- Source: Cleaver Brooks Emission Data - Low Emission Firetube Boilers
  - NOx: 0.367
  - SO2: 0.156
  - PM: 0.093
Building on Steam

Value Proposition

• Reliability
• Ease of operations
• Capital cost avoidance
• Risk mitigation
• Space efficiency
• Clean
• Peak electric load reduction (cooling)
Building on Steam

Steam Business Development Staff
Vincent Badali, Section Manager

- Armand Agasian
- Robert Forte
- George Gerritsen
- Elizabeth Perry
- Sheria Stallings
- Charles Viemeister
- Beth Wynne
- Sim Zirkiyev

212-460-2011
steamsales@coned.com
www.coned.com/steam