



Equity Office





January 18, 2006

6th Annual Microturbine Applications Workshop

Distributed Generation Business Model

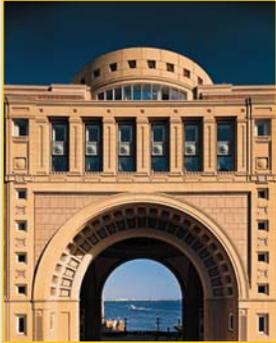
Thomas Smith

Vice President –
Energy Operations

Equity Office

Equity Office

Largest Office REIT / Office Building Owner in the United States
A Fortune Most Admired and S&P 500 Company



Boston
Rowes Wharf



Chicago
10 & 30 S. Wacker



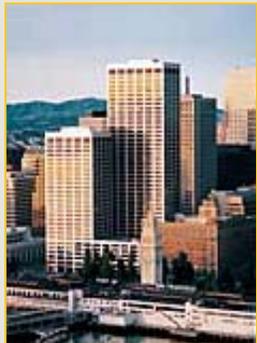
Seattle
Bank of America Tower



New York
Park Avenue Tower

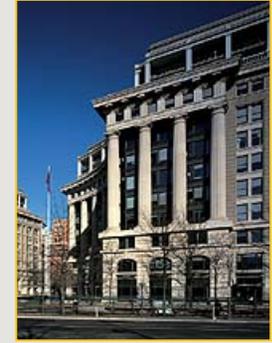


Los Angeles
The Tower



San Francisco
One Market

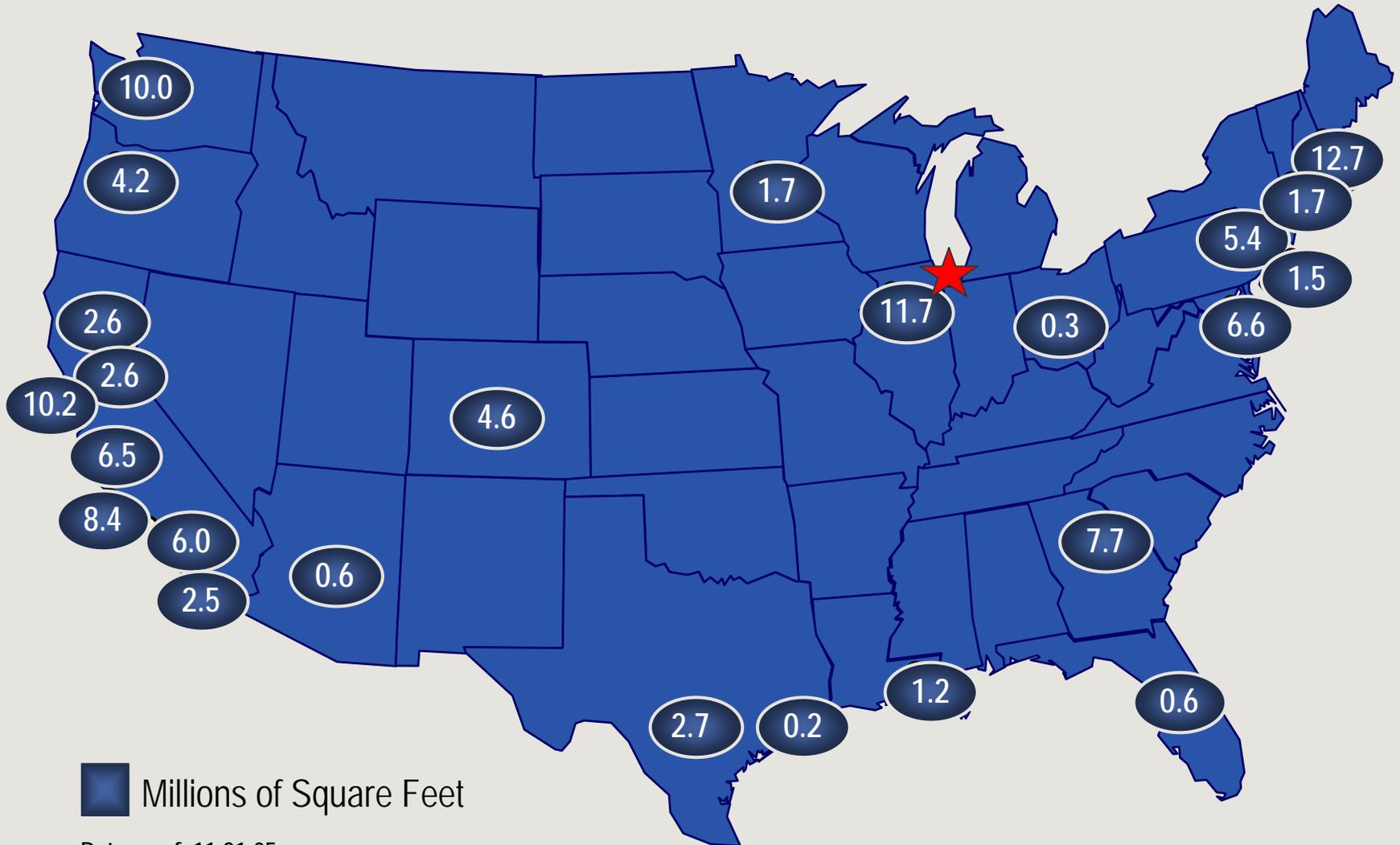
111.6 MSF IN 623 BUILDINGS
22 MSAs & 101 SUBMARKETS
8,126 CUSTOMERS
\$26.9B TOTAL CAPITALIZATION



Washington D.C.
Market Square

Equity Office National Platform

112.4 MILLION SQUARE FEET 24 MSAs 103 SUBMARKETS



■ Millions of Square Feet

Data as of 11-21-05



Energy represents the
single largest purchased
good for EOP

EOP Portfolio Energy Spend (estimated)

Electric Power	235,000,000 (tariff rate)
Natural Gas	12,000,000
Steam & Chilled Water	14,000,000

Total:	261,000,000
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On Site Energy Providers

As part of Equity Office's focus on efficiencies and working smarter, we have formed a business unit to concentrate on energy.

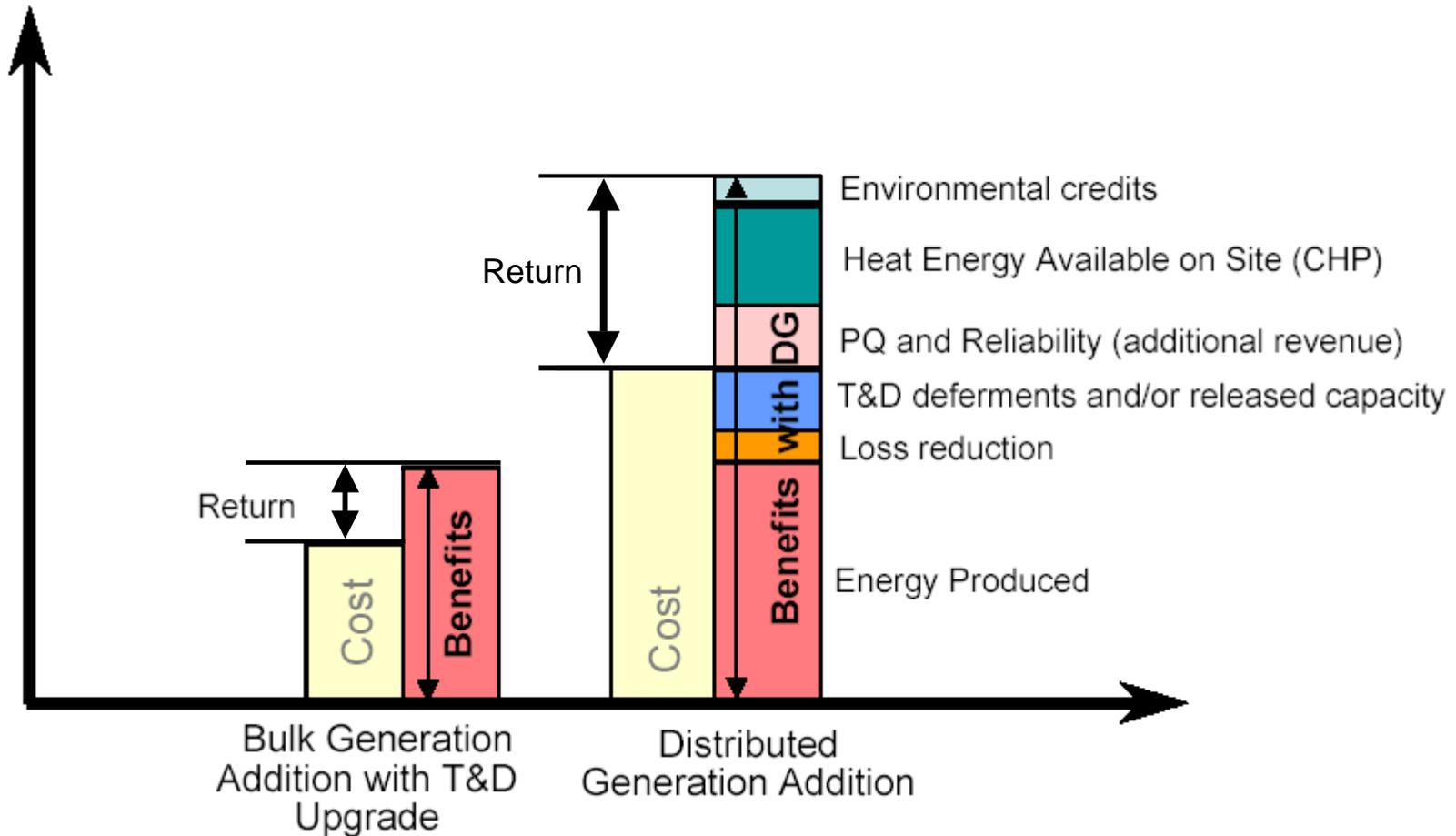
Five Focus Areas of OSEP

- Energy Reporting and Monitoring
- Energy Procurement
- Energy Auditing and Bill Processing
- Education
- Energy Retrofit Services
 - Demand-Side Management
 - Distributed Generation - CHP



Distributed Generation What is the business case?

DG Business Cases



DG Benefits

- Energy produced up to 80% efficiency.
- Power reliability.
- Helps avoid utility T&D expenses.
- Environmentally friendly.
- Discounted electric power and thermal energy for the building.
- More efficient heating-cooling systems.
- Better load profile for purchasing electric power.
- Natural gas cost reduced, due to volume purchasing.
- Standby power potential for current and future tenants.

Distributed Generation Criteria

Economic

Load

Standby Potential

Thermal Need

Gas

Electrical Feed

Space

Utility

Incentives

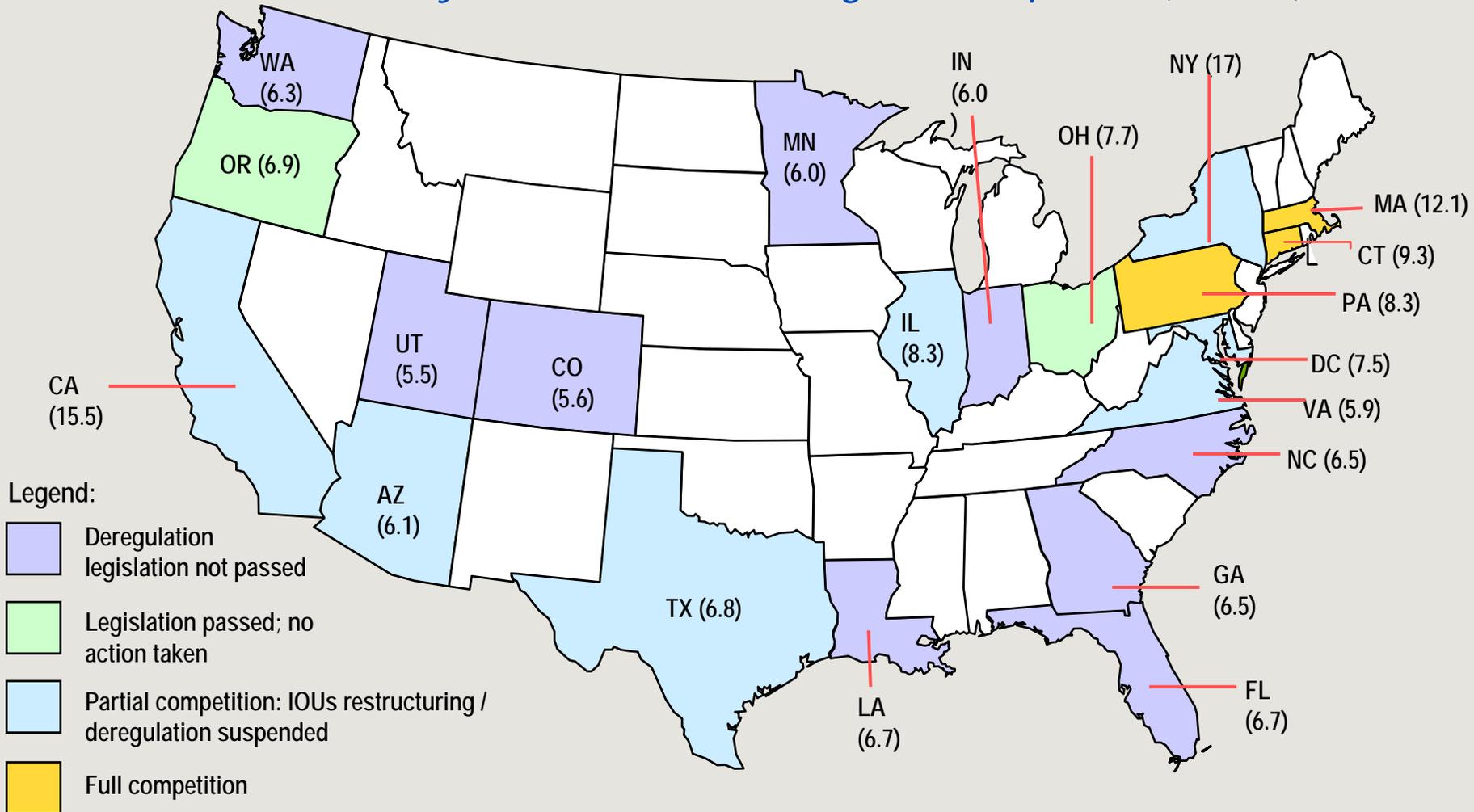
Environmental

Exhaust

Cooling

As a Result of Deregulation EOP Is Exposed to Varied & Changing Regulations and Prices

Status of electricity market restructuring & 2003 prices (c/kWh):

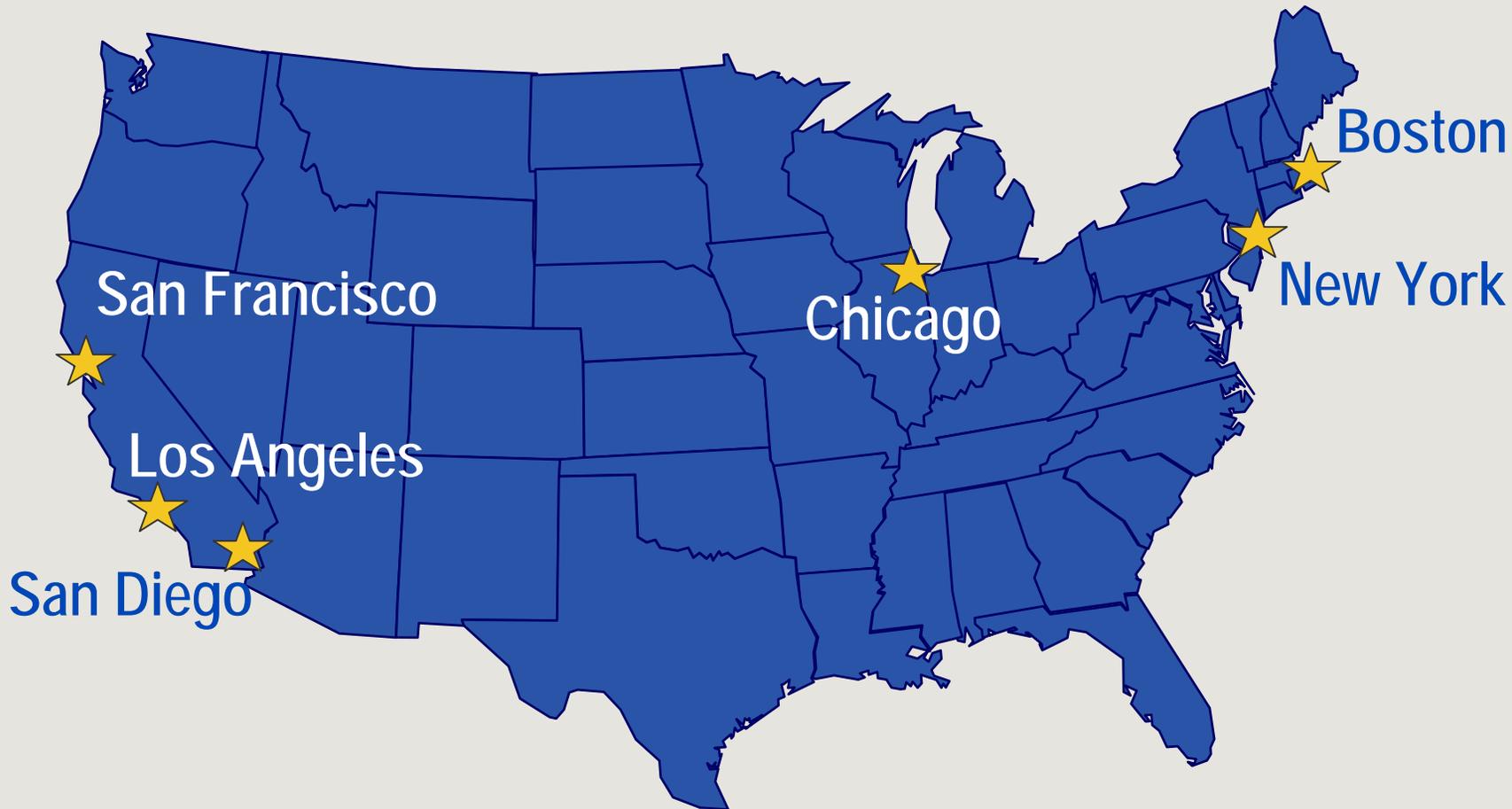


Note: Prices in c/kWh for Jan to Sept. 2002 for Commercial sector

Source: Energy Information Administration; Energyguide.com

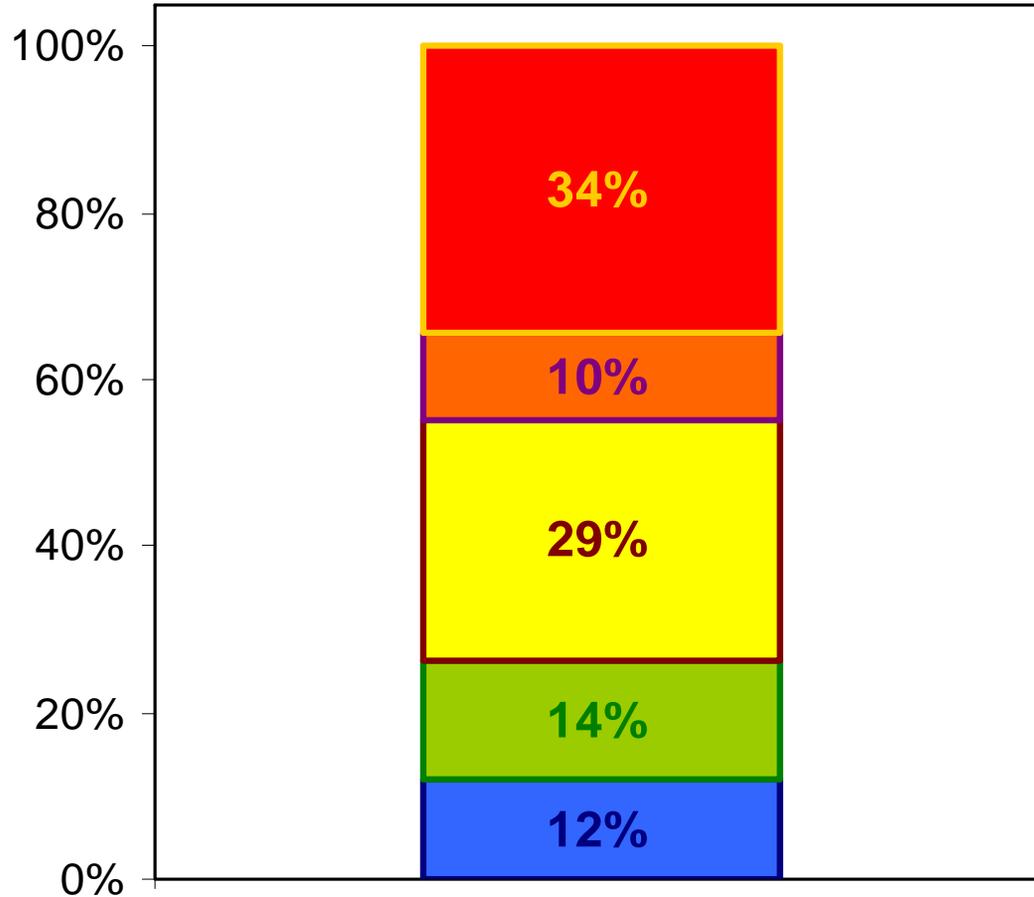
Regions Selected

Based on the economic evaluation of our portfolio, OSEP selected these regions to start our focus:



Co-Gen Revenues

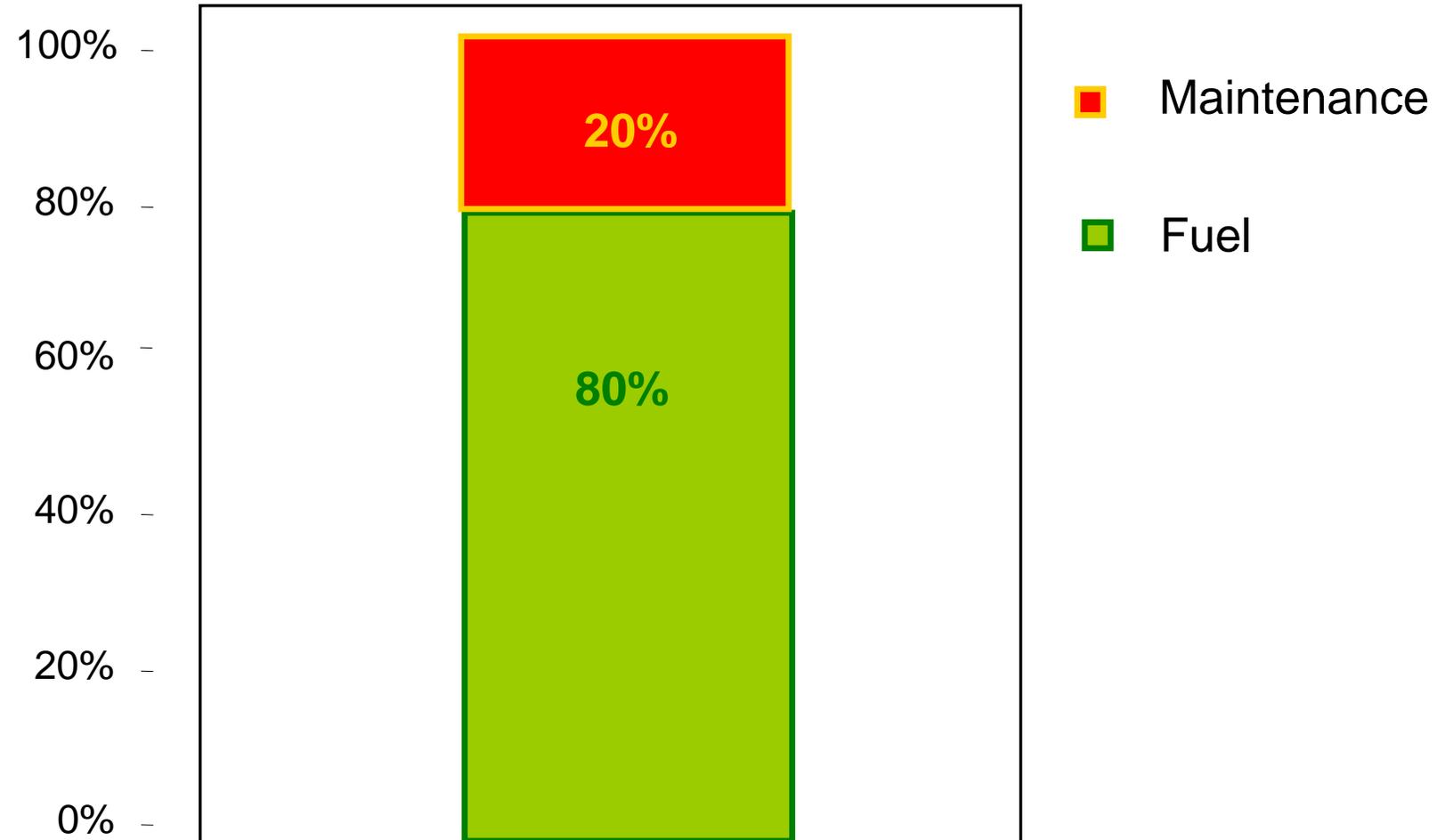
On Average



- On Peak Electric Commodity
- Off Peak Electric Commodity
- Electric Distribution
- Heating Steam (Winter Months)
- Cooling Steam (Summer Months)

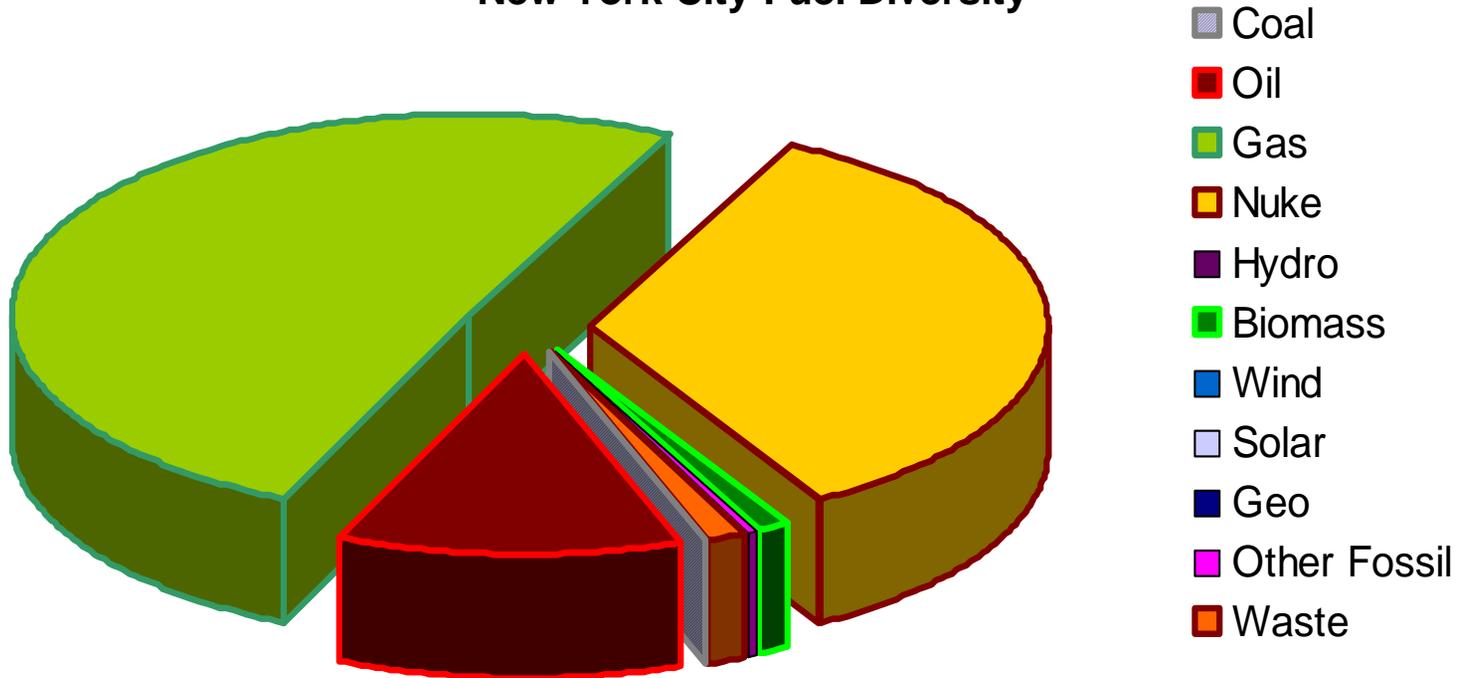
Co-Gen Expenses

On Average



New York-Electric Generation Fuel Diversity

New York City Fuel Diversity



New York-Electricity vs Natural Gas



1

OSEP L.L.C. Power Projects

Status	# of Projects	kW
Pre-development	6	6,530
Active Development	7	6,340
On-Line	12	7,345
Total:	25	20,215

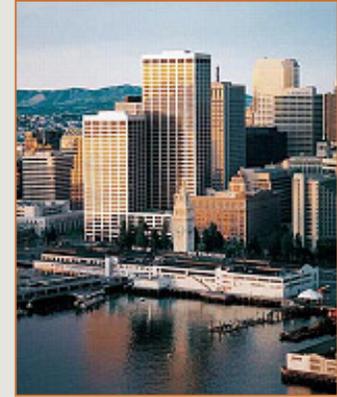
Power Projects On-Line



30 North LaSalle
Chicago, IL
1100 kW



101 North Wacker
Chicago, IL
400 kW



One Market Plaza
Steuart & Spear Towers
San Francisco, CA
1500 kW

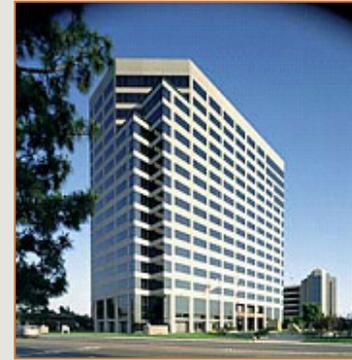


The Plaza at LaJolla Village
San Diego, CA
1,125 kW

Power Projects On-Line



201 Mission
San Francisco, CA
750 kW



1100 Town & Country
Orange County, CA
1,120 kW



505 City ParkWay
Orange County, CA
375 kW



600 City ParkWay
Orange County, CA
375 kW



City Plaza
Orange County, CA
600 kW

Power Projects Under Development



Treat Towers
Walnut Creek, CA
750 kW



City Tower
Orange County, CA
750 kW



Griffin Towers
Orange County, CA
950 kW



717 Fifth Avenue
New York, NY
1640 kW



1301 Ave of the Americas
New York, NY
2,250 kW



What is the best Cogen Technology for our Building Applications?

Distributed Generation Criteria

Economic

Load

Standby Potential

Thermal Need

Gas

Electrical Feed

Space

Utility

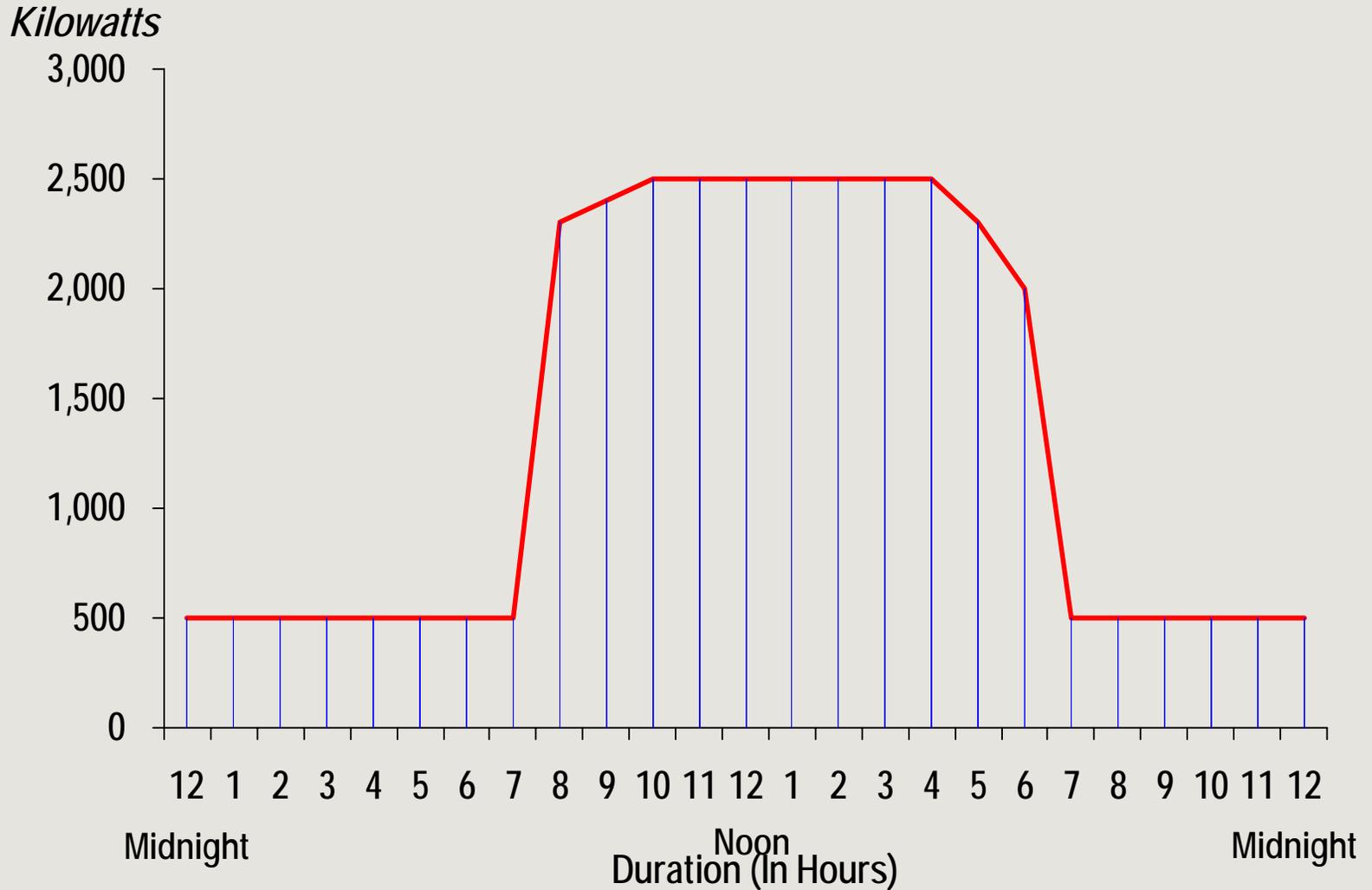
Incentives

Environmental

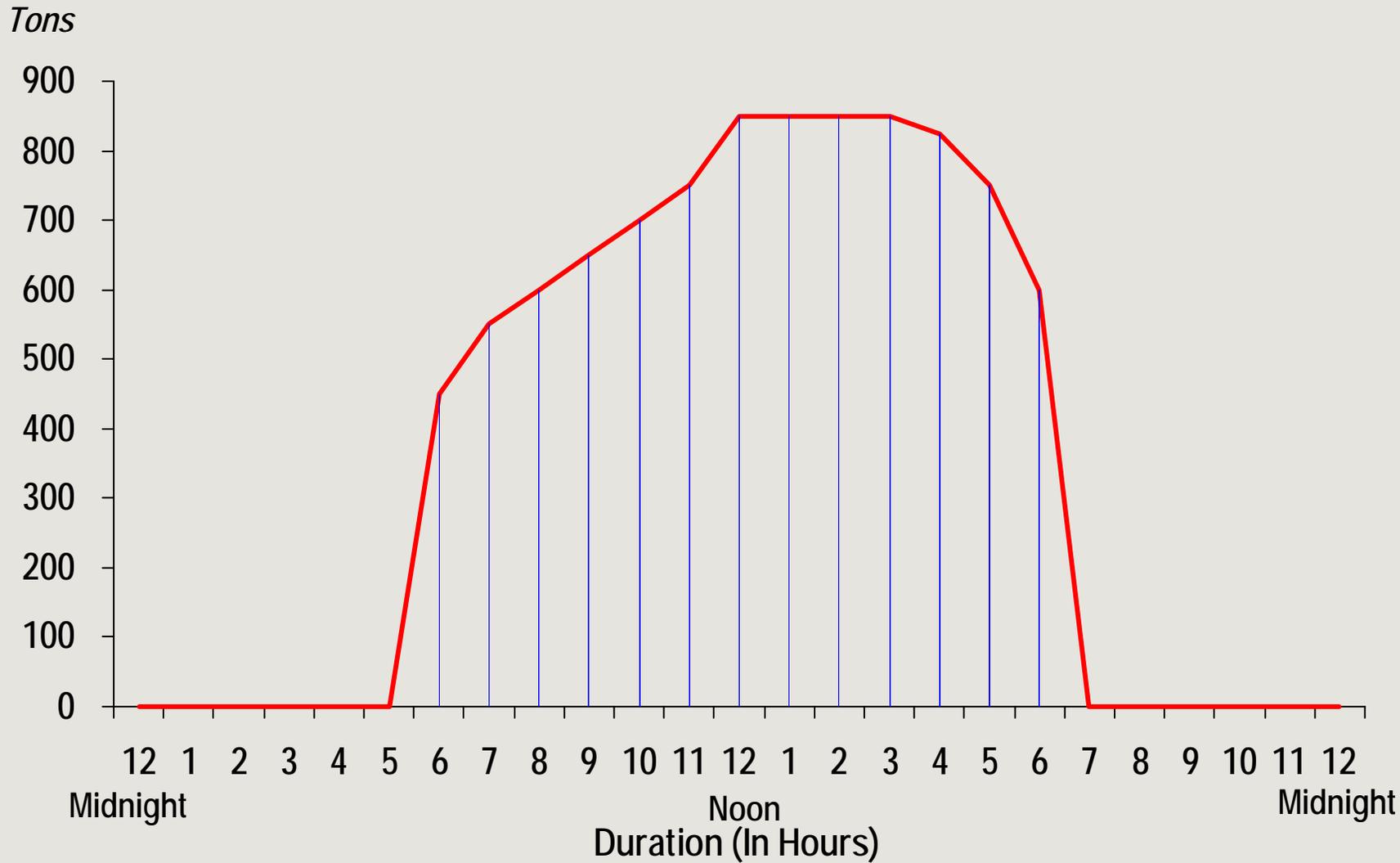
Exhaust

Cooling

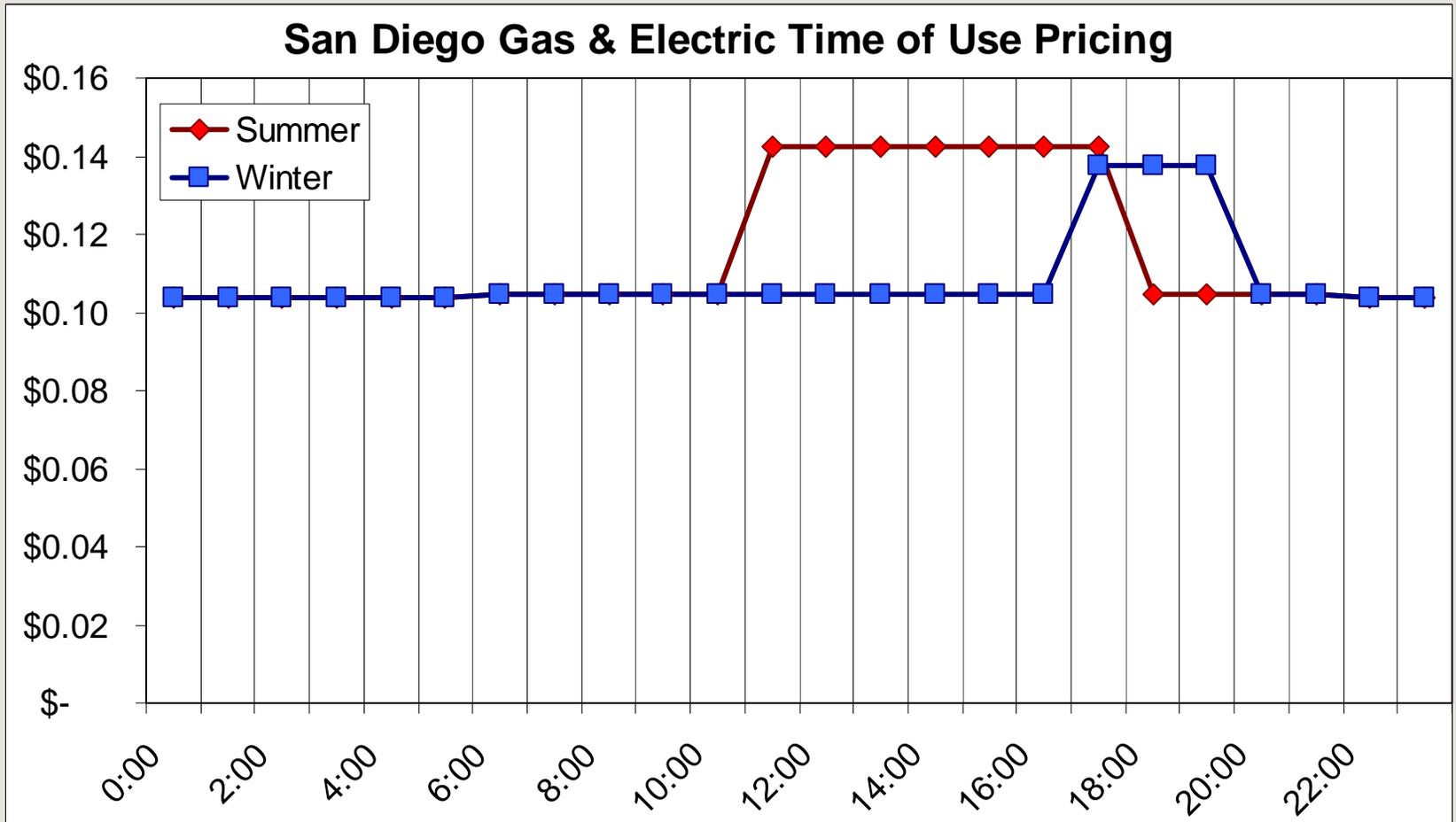
Typical Day: Electric



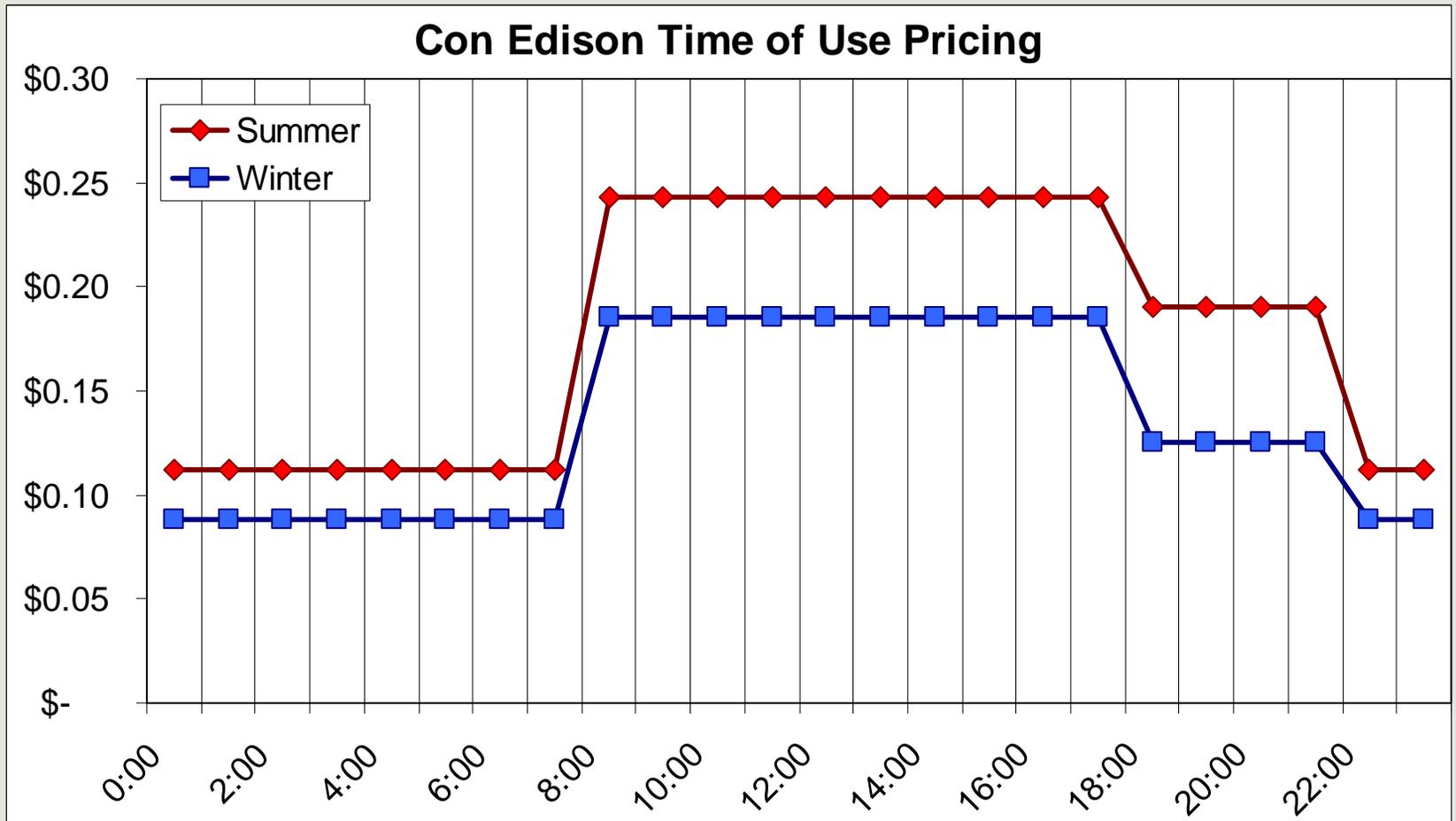
Typical Day: Chilling / Thermal



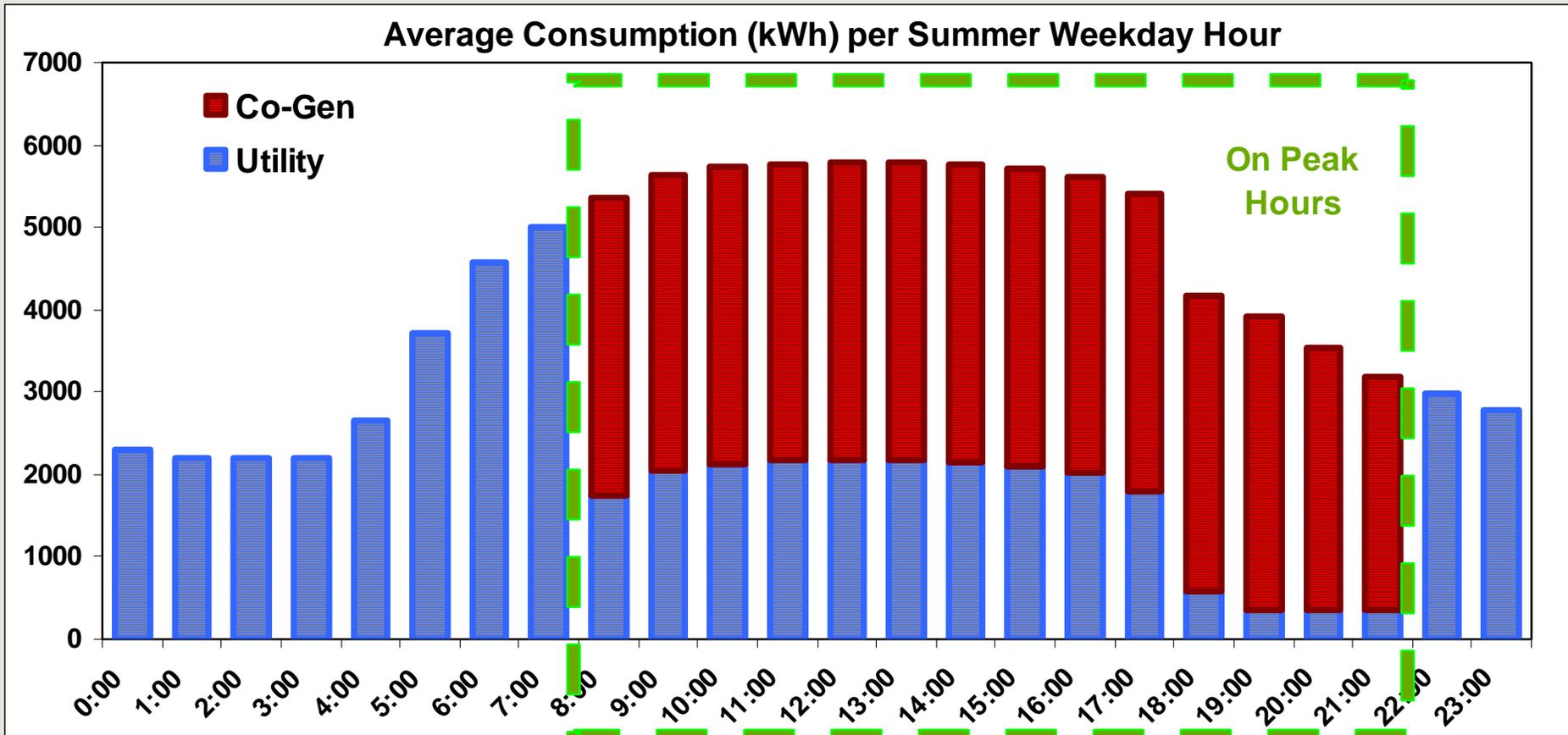
San Diego Rate Structure



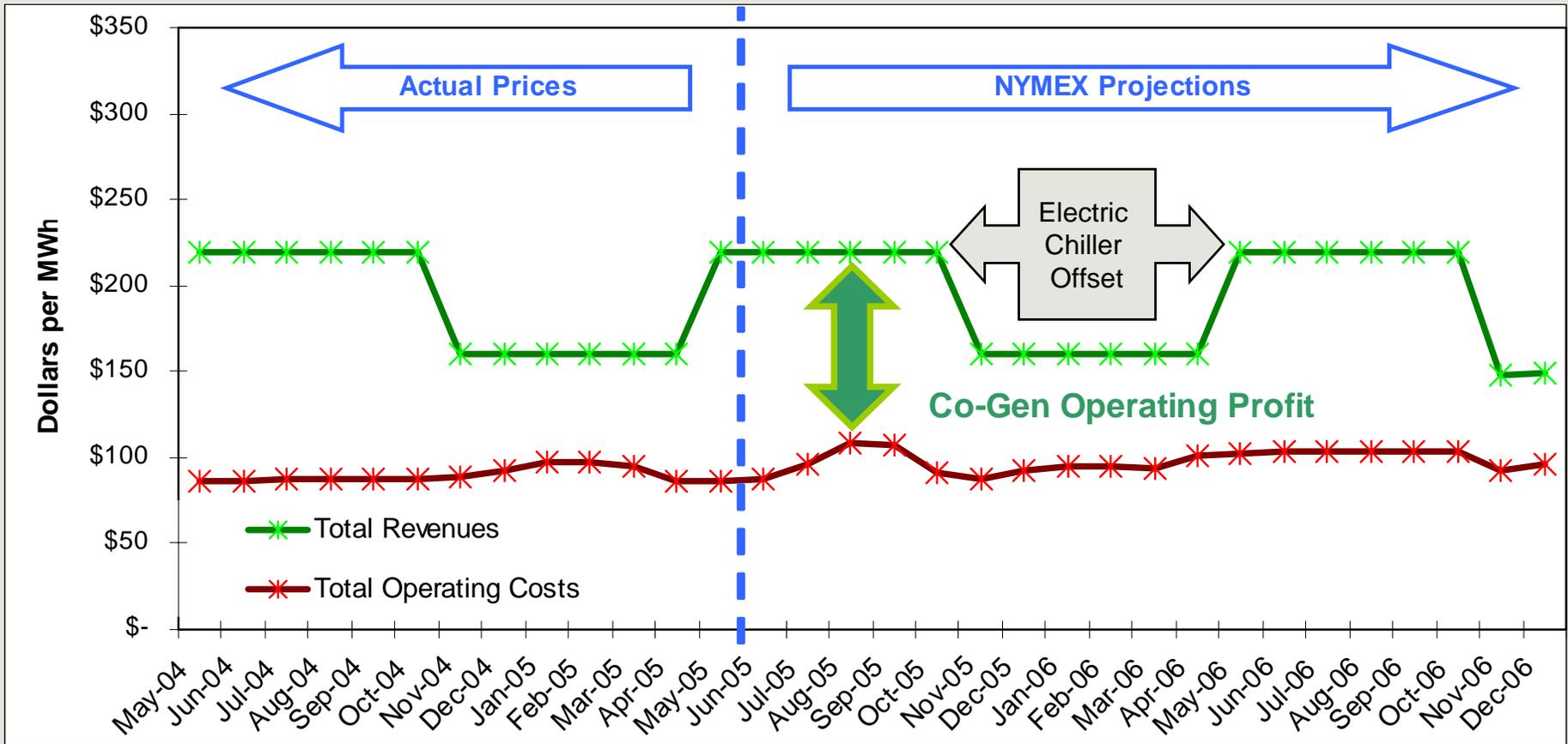
New York Rate Structure



Typical IC Engine Operating Profile



California Co-Gen Operating Profit



PG&E E19S On Peak Electric Delivery

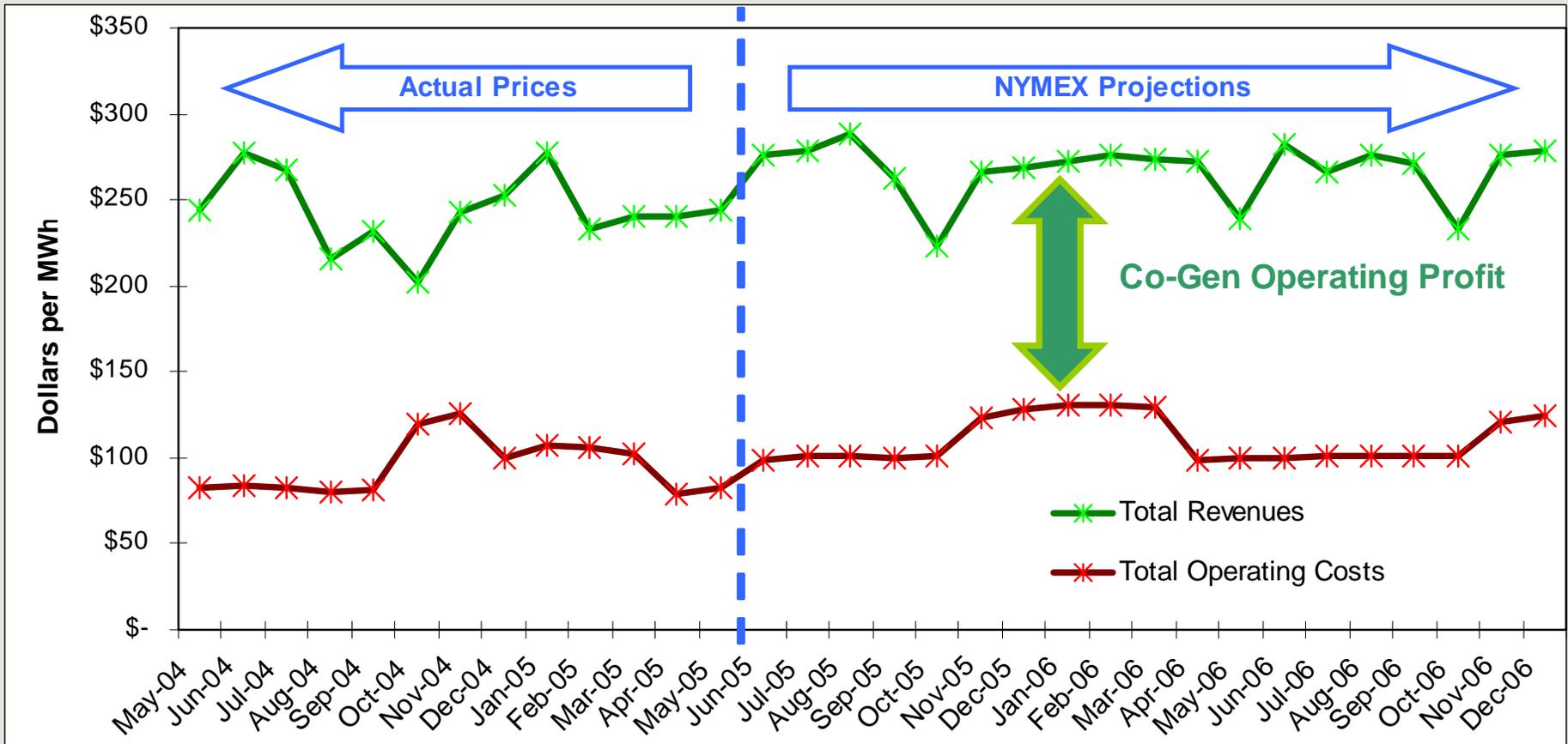
Sempra Commodity Contract

NYMEX Gas Commodity

PG&E CityGate Gas Basis

PG&E Gas Delivery

New York Co-Gen Operating Profit



ConEd RA4 On Peak Electric Delivery

NYMEX Commodity Contract

NYMEX Gas Commodity

Transco Zone 6 Gas Basis

ConEd Gas Delivery

ConEd Steam SC2 Tariff

Why Reciprocating Engine Cogen

- Operate During On / Mid-Peak Hours
 - Cost
 - Load
- High Electric / Low Thermal (Compared to Industrial)
- Greater Demand / Cost During Highest Temperature
- Low Gas Pressure
- Operating Engineers Comfortable with Equipment
- Systems Very Compact
- Ability to Provide Back-Up Power
- Easy to Provide Multiple Prime Movers (Electric Interconnect)
- Historic Low Emissions
- Relativity Low Maintenance Costs

DG Lessons Learned - For Future Projects

- Phase I Initial Market and Site Analysis
- Phase II Preliminary Design and Project Approval
- Phase III Contracts and Scopes
- Phase IV Final Design and Engineering
- Phase V Manufacturing, Construction, Installation and Commissioning
- Phase VI Operation and Maintenance

Future Trends in Energy

- Prices going up
- Reliability going down
- Usage in key markets increasing
- Real-time pricing here to stay
- Tenants focusing more on energy
- Creative procurement, conservation and On Site Generation (DG) will become a necessity



Equity Office

