



A  Sempra Energy utility



COLD IRONING **San Diego Cruise Ship Terminal**

February 9, 2006

SDG&E: serving you today, planning for tomorrow



- Today: SDG&E is striving to provide safe, reliable energy and exceptional customer service.
- Tomorrow: Ensuring adequate energy infrastructure is one of SDG&E's most important responsibilities.
- In fact, Sempra Energy's utilities and subsidiaries have invested more than \$6 billion in new power plants, electric-transmission lines and natural gas pipelines and other energy infrastructure to serve California.
- Cold Ironing will benefit all San Diegans with cleaner air: SDG&E is a committed partner.

Energy use up as San Diego evolves



Downtown San Diego transformed:

- 400 new / renovated buildings
- Increase in residential customer density
- Petco Park
- Major Hotels
- San Diego Convention Center Expansion
- Gaslamp Quarter

Cold Ironing projected load



- Floating residential customer equivalence
 - 1,000 residential customers per 1MW = 24,000 new customers for cruise ship terminal at 24MW
- Very high costs to change existing electric infrastructure
 - New load = new substation
- Difference in supply voltage levels – customer expense
 - 6.6kV is not a standard CPUC Rule 2 Supply voltage
- Regulatory approval process for new substation

Energy infrastructure needed to keep pace



- Operational / engineering challenges
- System Reliability
 - Transmission Infrastructure requires study - ongoing
- Electric substation infrastructure in the downtown area
 - Currently 320MW
- New power substation to support downtown load growth
 - Planning stages about three years in
- Growth plan / downtown needs study - ongoing

Electricity costs



- Tariffs – ALTOU Transmission Level Service
- Advantages of 69kV transmission service vs. 12kV distribution
- Cost associated with securing extra capacity for ships in port