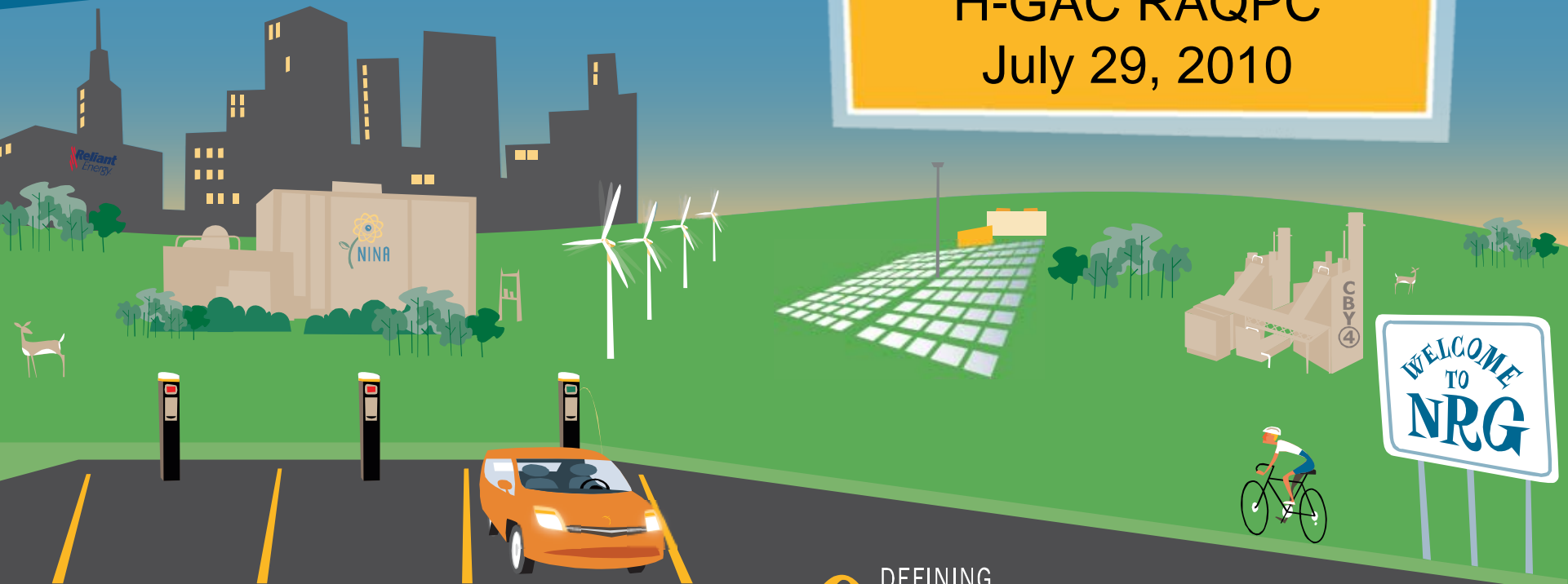




NRG Energy Coal and Power Plant Information

Ben Carmine
H-GAC RAQPC
July 29, 2010



DEFINING
GENERATION

Safe Harbor Statement



This Presentation contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. Forward-looking statements are subject to certain risks, uncertainties and assumptions and typically can be identified by the use of words such as “expect,” “estimate,” “should,” “anticipate,” “forecast,” “plan,” “guidance,” “believe,” “will” and similar terms. Such forward-looking statements include information relating to the W.A. Parish Plant and emission controls. Although NRG believes that these expectations are reasonable, it can give no assurance that these expectations will prove to have been correct, and actual results may vary materially. Factors that could cause actual results to differ materially from those contemplated above include, among others, general economic conditions, hazards customary in the power industry, weather conditions, competition in wholesale power markets, the volatility of energy and fuel prices, failure of customers to perform under contracts, changes in the wholesale power markets, changes in government regulation of markets and of environmental emissions, the condition of capital markets generally, construction delays and the inability to implement value enhancing improvements to plant operations and companywide processes.

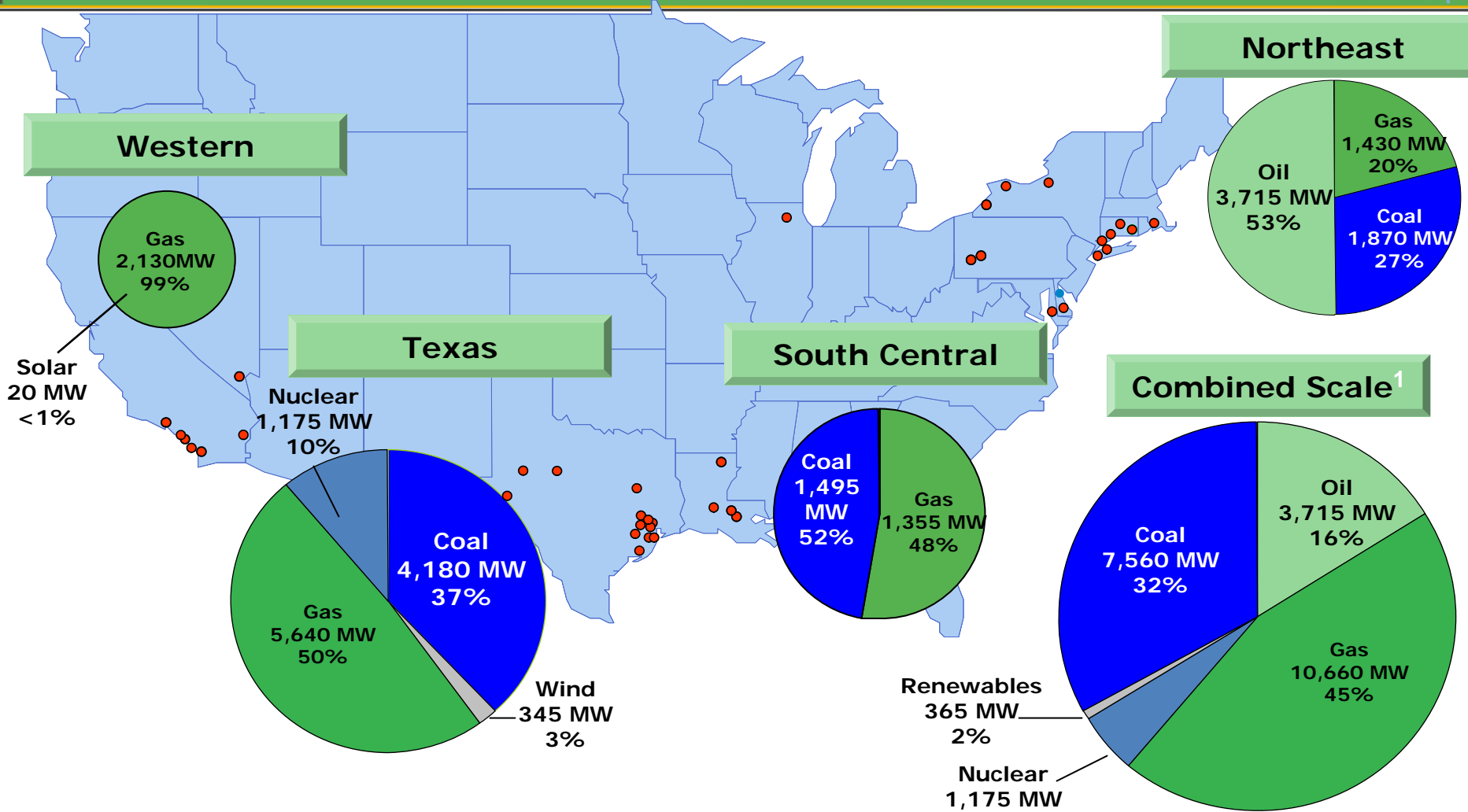
NRG undertakes no obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise. The foregoing review of factors that could cause actual results to differ materially from those contemplated in the forward-looking statements included in this Presentation should be considered in connection with information regarding risks and uncertainties that may affect NRG's future results included in NRG's filings with the Securities and Exchange Commission at www.sec.gov.

Who is NRG Energy?



- **NRG Energy (NRG) is an independent power producer headquartered in Princeton, NJ**
- **24,000 megawatts (MW) of electric generating capacity located in several U. S. regions**
- **NRG acquired the power plants originally belonging to HL&P in 2006 (NRG Texas)**
- **In 2009, NRG Texas acquired Reliant Energy, a retail electric business serving more than 1.6 million customers in Texas.**
- **Also in 2009, NRG acquired Bluewater Wind, a leading offshore wind development business with >250 MW under development.**
- **In June 2010, NRG acquired a portfolio of solar development projects from US Solar. We now have >1150 MW of solar projects under development.**
- **NRG is a member of the U.S. Climate Action Partnership (USCAP)**

The NRG Fleet



¹ Includes 115 MW as part of NRG's Thermal assets. For combined scale, approximately 2,095 MW is dual-fuel capable. Reflects only domestic generation capacity as of December 31, 2009

NRG Texas – Investment in Texas Diverse Generation



● Coal/Lignite
 ● Nuclear
 ● Gas
 ● Wind



West Texas Wind Farms
 247 turbines at 4 sites
 (446 MW net)



Limestone – 2 units,
1,690 MW
 (Low cost mine
 mouth lignite plant)



Houston Gas Plants – 35
units at 5 plants, 4,545 MW
 (Intermediate, cyclic and
 peaking natural gas)



W.A. Parish – 4 units,
2,460 MW coal and
1,190 MW natural gas
 (One of the largest power
 generation stations in the
 US)



South Texas Nuclear Project
2 units, 1,175 MW
net to NRG Texas
 (One of the newest nuclear
 plants in the US)

Megawatts (MW)	
Baseload	5,325
Intermediate	4,991
Peaking	744
Renewable	446
Total Operating Capacity	11,506

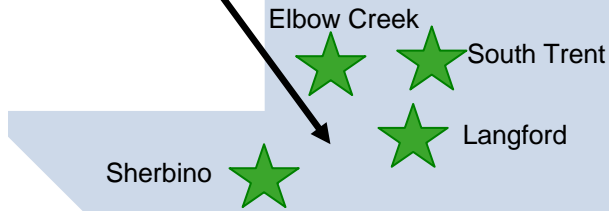
NRG Texas Plan – Balanced Approach – Diversity of Supply



ONLINE

West Texas Wind Farms

- 446 MWs in west Texas
- 247 Turbines at 4 locations
- 3 sites developed by NRG, 1 acquired
- Online in 2008 and 2009



South Texas Project Units 3&4

- STP site built for 4 units
- NRC license application late 2007
- Anticipate license in 2012
- ABWR design NRC certified, proven
- Two 1350 (base load) MW units – online in 2016 and 2017
- Workforce development efforts being implemented/developed

Limestone Unit 3

- 800 MW coal unit with best available controls for emissions
- Netting key emissions at the site and reducing them following startup
- Advanced cooling - significantly reduces water use
- Permitted in 2009

Cedar Bayou Unit 4

- 550 MW new CCGT capacity
- More responsive generation
- Extremely low NOx emissions

Post Combustion Carbon Capture

- Commercial scale demonstration at the WA Parish plant
- ~90% CO2 capture (60 MW equivalent)

ONLINE

Note: Completion of projects dependent on market and commercial conditions

W. A. Parish Facts



- **One of the largest electric generating stations in the U. S. in terms of generating capacity**
- **Located on a 4,880 acre site near Thompsons, Texas**
- **Four natural gas fueled steam generators – total gross capacity of ~1,200 MWs (1958-1968 CODs)**
- **Four coal fueled steam generators – total gross capacity of ~2,650 MWs (1977-1982 CODs)**
- **One 13 MW gas turbine generator**
- **Named one of “Top Plants of 2004” by Platts Power Magazine- noting that its NOx emission rates were among the lowest in the U.S.**

Coal Plant Emission Control Technology



Nitrogen Oxide (NO_x)

- Low NO_x Burners
- Selective Catalytic Reduction (SCR) Systems

Particulate Matter

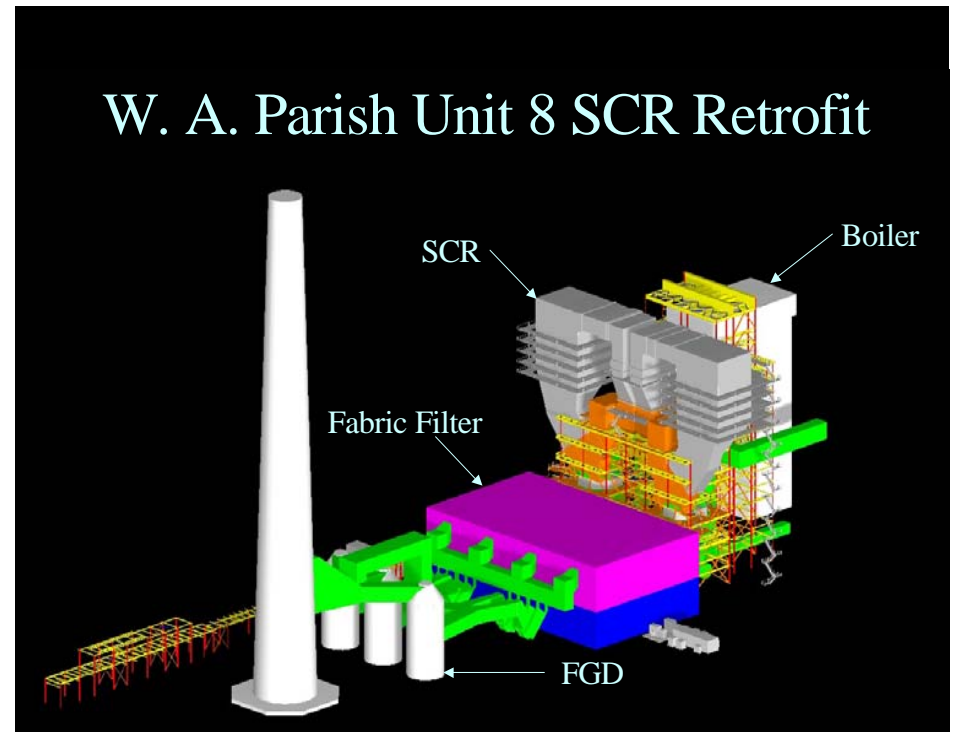
- Baghouse (Fabric Filter) Systems

Sulfur Dioxide (SO₂)

- Low Sulfur Coal
- Flue Gas Desulfurization System (FGD)

Continuous Emission Monitoring

- SO₂, NO_x, CO, CO₂, and opacity



Advanced Low NO_x burner systems

- Installed 1999-2001
- 50%-60% NO_x
reductions achieved



SCR's (Selective Catalytic Reduction)

- SCRs convert NO_x to nitrogen and water in the presence of a catalyst
- 70-80% additional NO_x reduction
- Placed in service 2003-2004
- \$420 million installed cost



Baghouse System for Fly Ash Removal

- >99% control efficiency
- 13,000-15,000 bags per unit
- ~90% beneficially used by cement and other industries



Flue Gas Desulfurization System (FGD) for Sulfur Removal

- Installed on Unit 8
- Spray tower design
- Limestone slurry reagent
- Removes ~85% SO₂



Unit 6 SCR Construction (May 2000)



WAP 6 SCR Tie-In, May 15, 2000

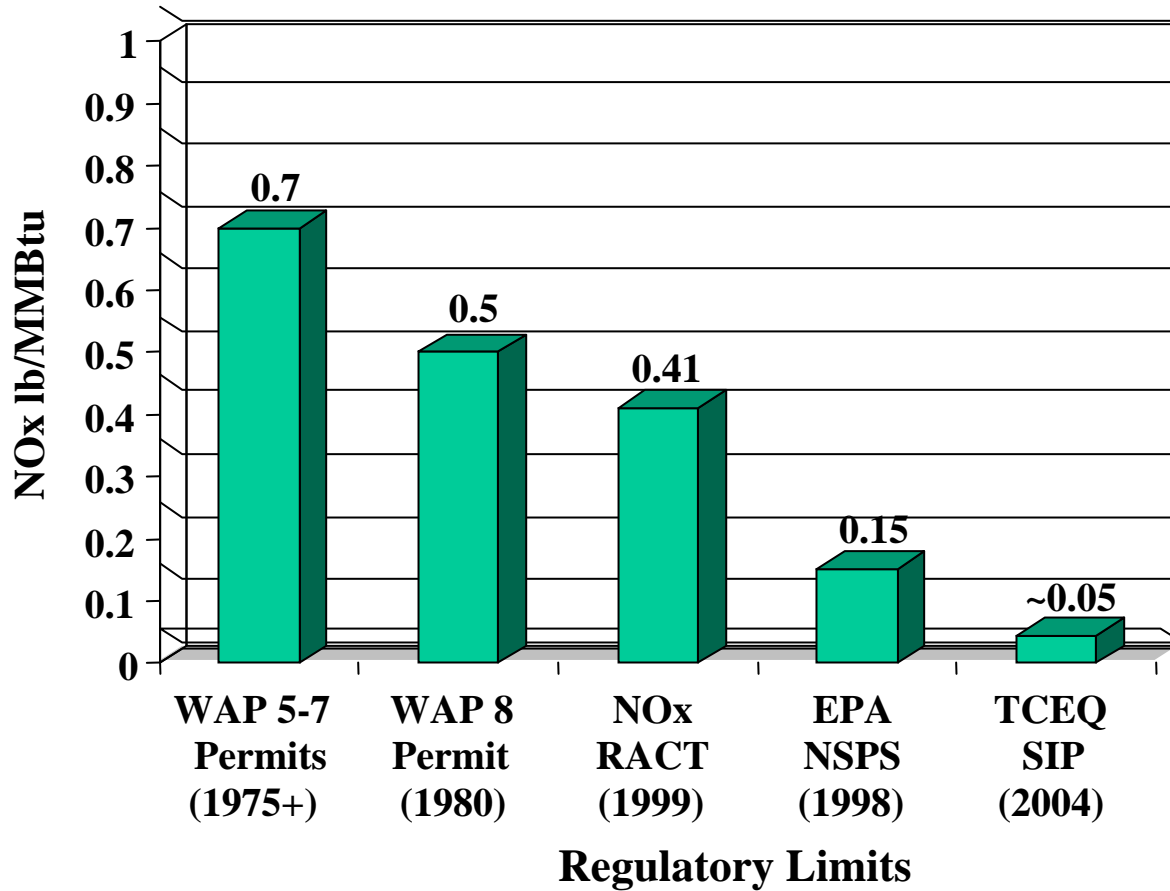
Unit 5 SCR Construction (July 2002)



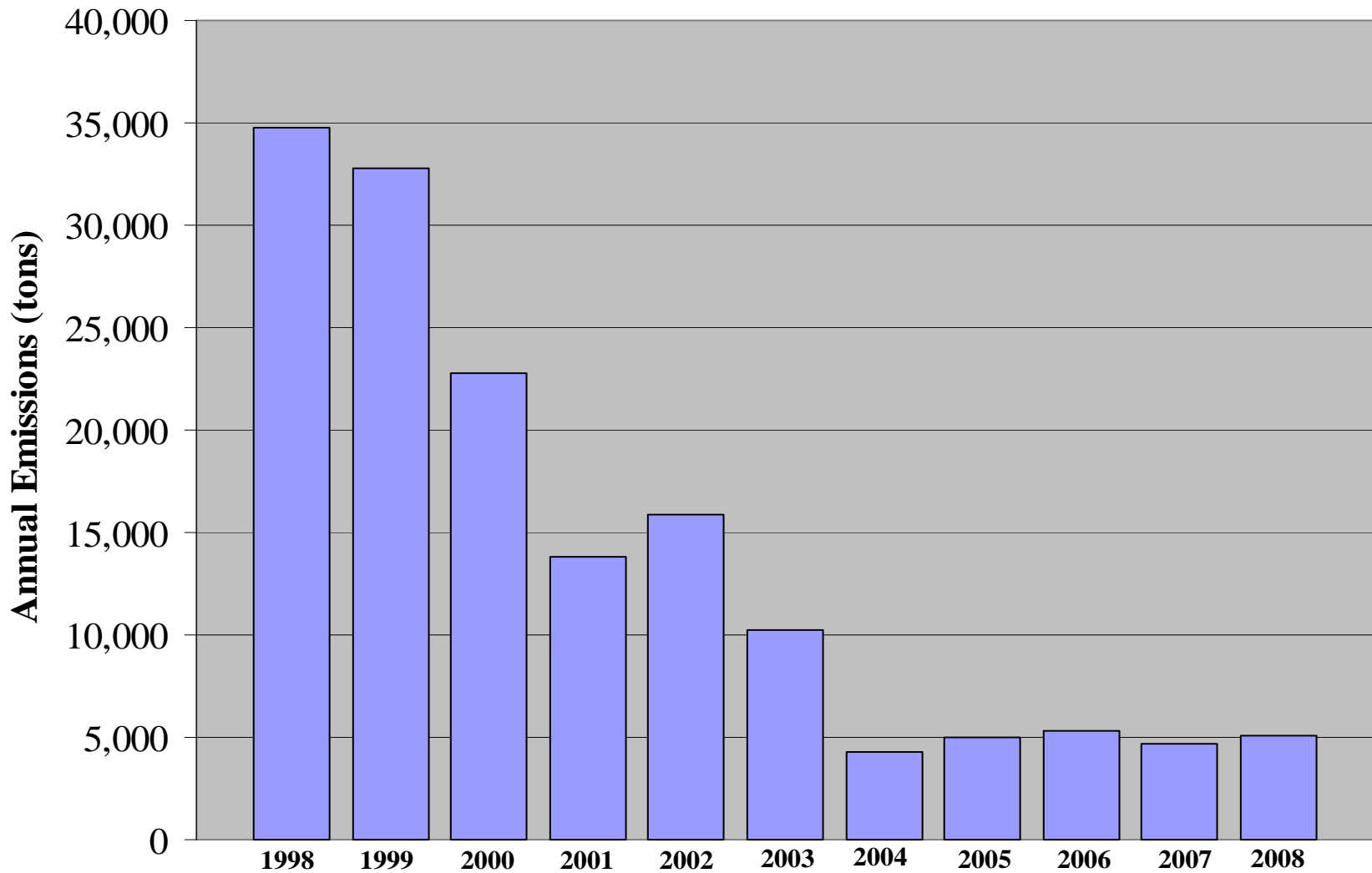
Unit 6 SCR (September 2003)



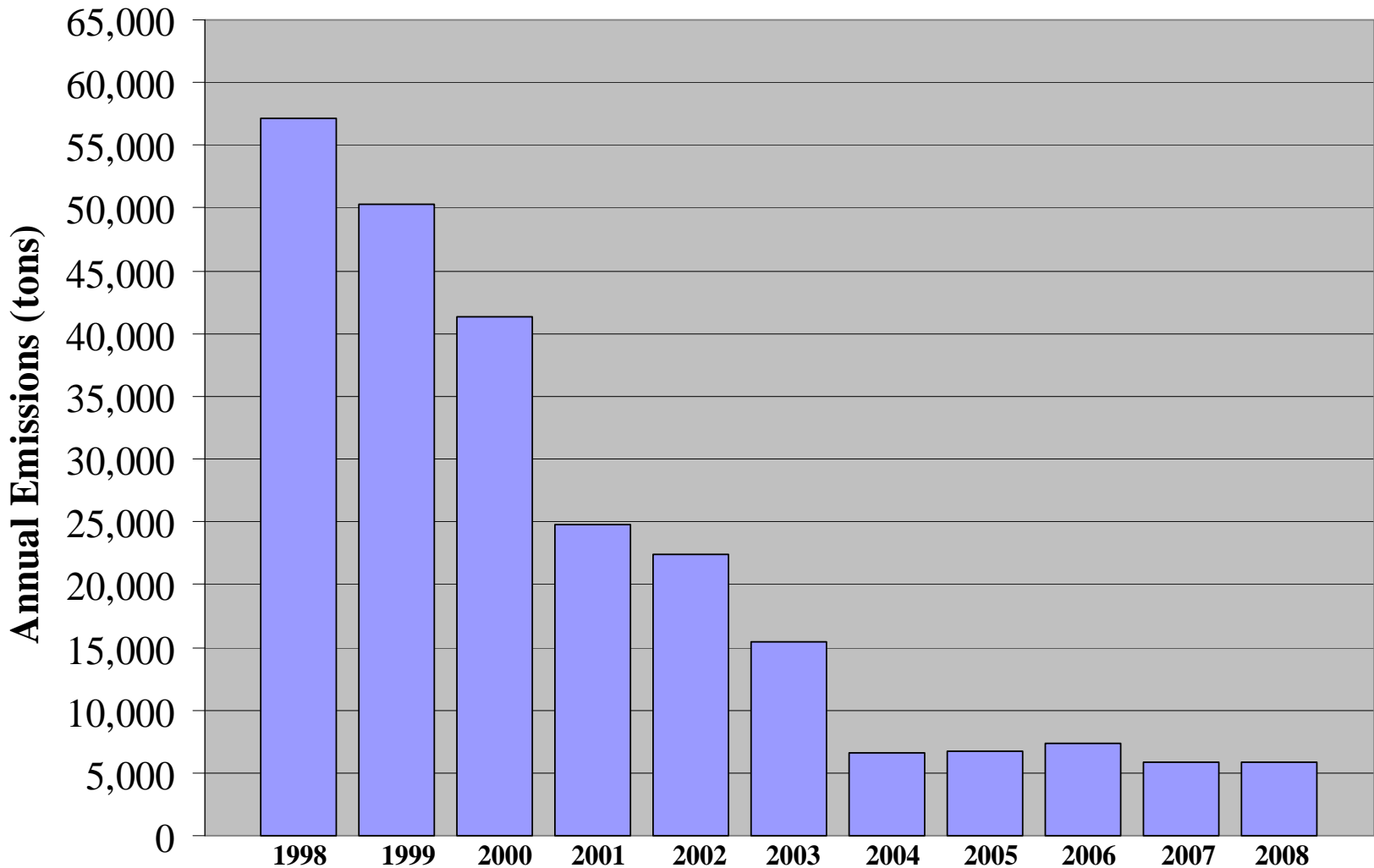
Coal Unit NOx Regulatory Limit Trends



W.A. Parish Station NOx Emission Trend 1998-2008



NRG Texas Houston Area NOx Emission Trend 1998-2008



Ash Recycling

- Most coal combustion products are beneficially used
- Utilized as a concrete additive and road base
- Ash is currently classified as Class II non-hazardous waste
- Ash disposal (dry) in clay-lined on-site industrial landfill



Future Emission Control Programs for Coal Plants



- **EPA Clean Air Transport Rule (CATR)**
 - Proposed July 2010
 - Two-phase program to further reduce emissions of SO₂ by ~70% and NO_x by ~50%
 - 31 Eastern states affected w/four control regions
 - Phase 1 starts 2012; Phase 2 in 2014
 - Texas is affected for seasonal NO_x only
- **EPA Maximum Available Control Technology (MACT) Rule for Mercury (Hg) and acid gases**
 - Proposed rules 3/2011; final in 11/2011 with compliance in 2014-2015?
 - Possible controls--activated carbon injection for Hg and alkaline injection or scrubbers for acid gases
- **New Ozone, SO₂, PM NAAQS could also drive investment in additional controls**

- **Various federal climate/energy bills under consideration by U.S. Congress**
 - Most are market-based cap & trade programs
 - ~17-20% reduction in CO₂ emissions by 2020
 - ~80% reduction by 2050
- **Existing power plants regulated, new coal plants may have carbon capture requirements**
- **NRG has supported recent legislation (e.g. Waxman-Markey, Kerry-Lieberman bills)**
- **With no Congressional action, new EPA regulations require reporting of GHGs and permits/BACT for new major sources of GHGs**

WA Parish Carbon Capture Project



Project Highlights

Description

- 60 MW post-combustion carbon capture unit on 600+ MW WA Parish Unit 7 near Houston
- Capacity to sequester 400,000 MT CO₂ per year

Technology

- Fluor Econamine FG + capture technology
- Small co-generation unit will supply steam
- Sequestered CO₂ to be used for enhanced oilfield recovery in Houston area

DOE Support

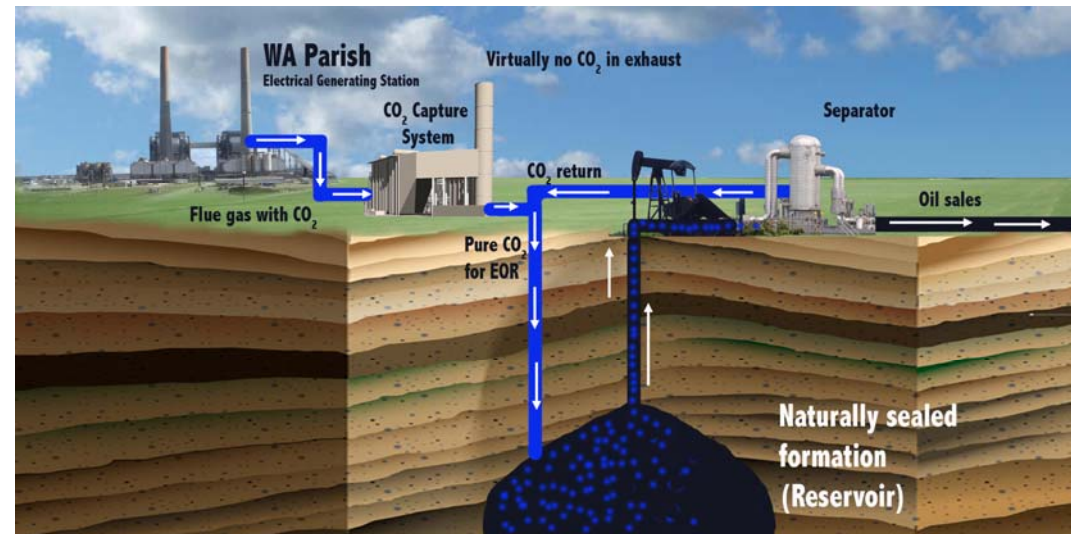
- \$167 million Clean Coal Power Initiative Grant
- DOE will match NRG up to the amount of the grant

Timing

- Initial engineering study starts in the summer
- Operation Date: 2014

Project Objectives and Benefits

- ✓ Demonstrate feasibility of utility-scale carbon sequestration project
- ✓ Prove that use of captured CO₂ in enhanced oilfield recovery provides commercially significant revenue stream

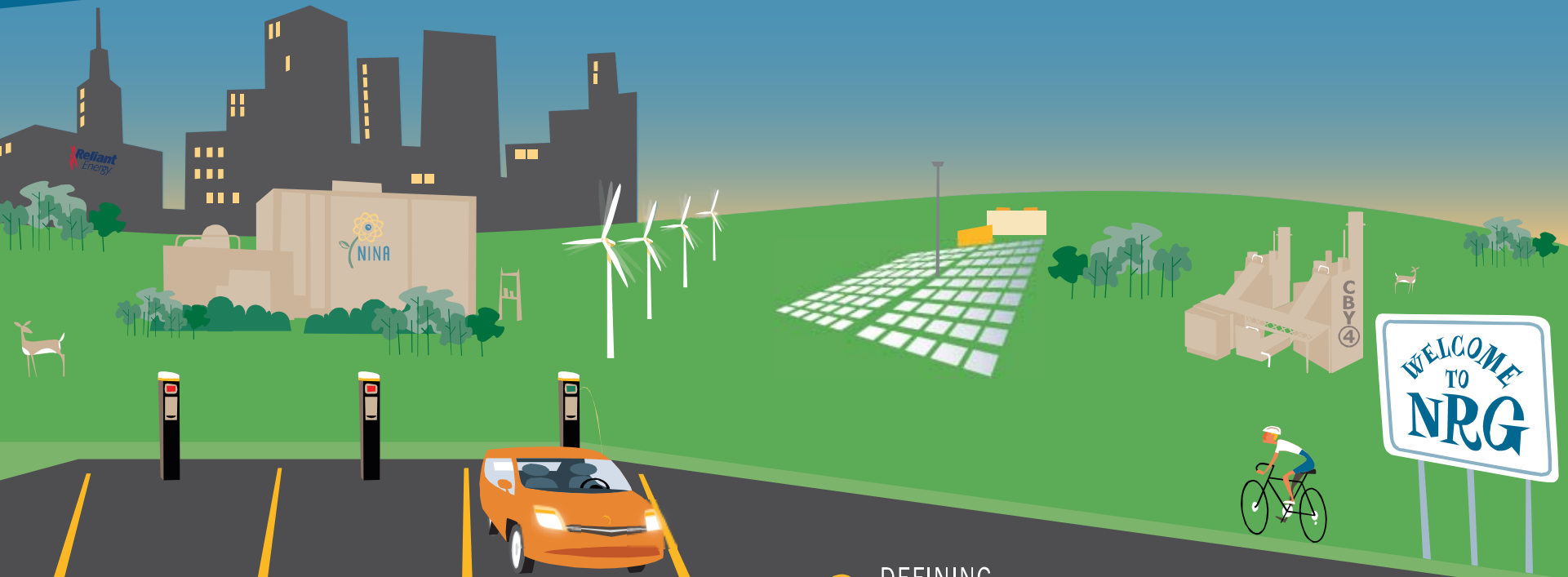


Limestone Unit 3



- **A new 800 MW coal unit to be added at existing Limestone Station**
- **Applied for air permit in June, 2006; received permits in December, 2009 following contested case hearing**
- **Emission controls meet BACT/MACT requirements**
- **Settlements with several stakeholders:**
 - No sitewide increase in SO₂, NO_x, and Hg upon start-up of Unit 3
 - Additional reductions in SO₂, NO_x, and Hg within 3 years
 - Agreement to offset 50% of CO₂ emissions and Unit 3 to be designed for future carbon capture
 - Advanced cooling technology to reduce water usage
 - Commitment to build no future conventional coal plants
- **Air permits under currently under appeal in U.S. District Court**

- **NRG is developing a portfolio of clean generation facilities, with emphasis on low carbon emissions**
- **Coal is an abundant domestic resource that needs to continue to play a role in the power generation needs of Texas and U.S.**
- **Control technologies are available and are being installed to minimize emissions from coal units**
- **The current permit process in Texas insures new sources utilize BACT/MACT and air quality standards are met.**
- **Pending federal programs (e.g. CATR, MACT, NAAQS) will insure continued emission reductions and air quality improvements from existing sources**
- **Future Federal climate/energy legislation is expected to reduce carbon emissions from coal plants and other sources while new EPA regulations address reporting and permitting**



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