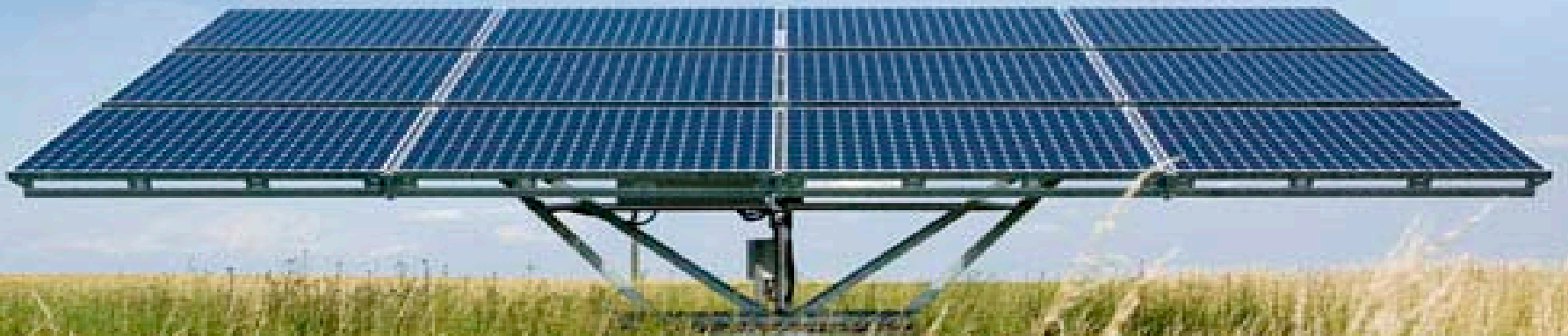


# The Beyond Coal Campaign In Texas





# General Outline

- (1) the nature of the campaign – background, objectives;
- (2) what financial research was conducted, how it was produced and disseminated;
- (3) what were the targets of the financial information;
- (4) how the financial information and analysis was used in the campaign – media, educating opinion leaders, leadership or team building, fundraising; and
- (5) what worked and what would you do differently in the future.



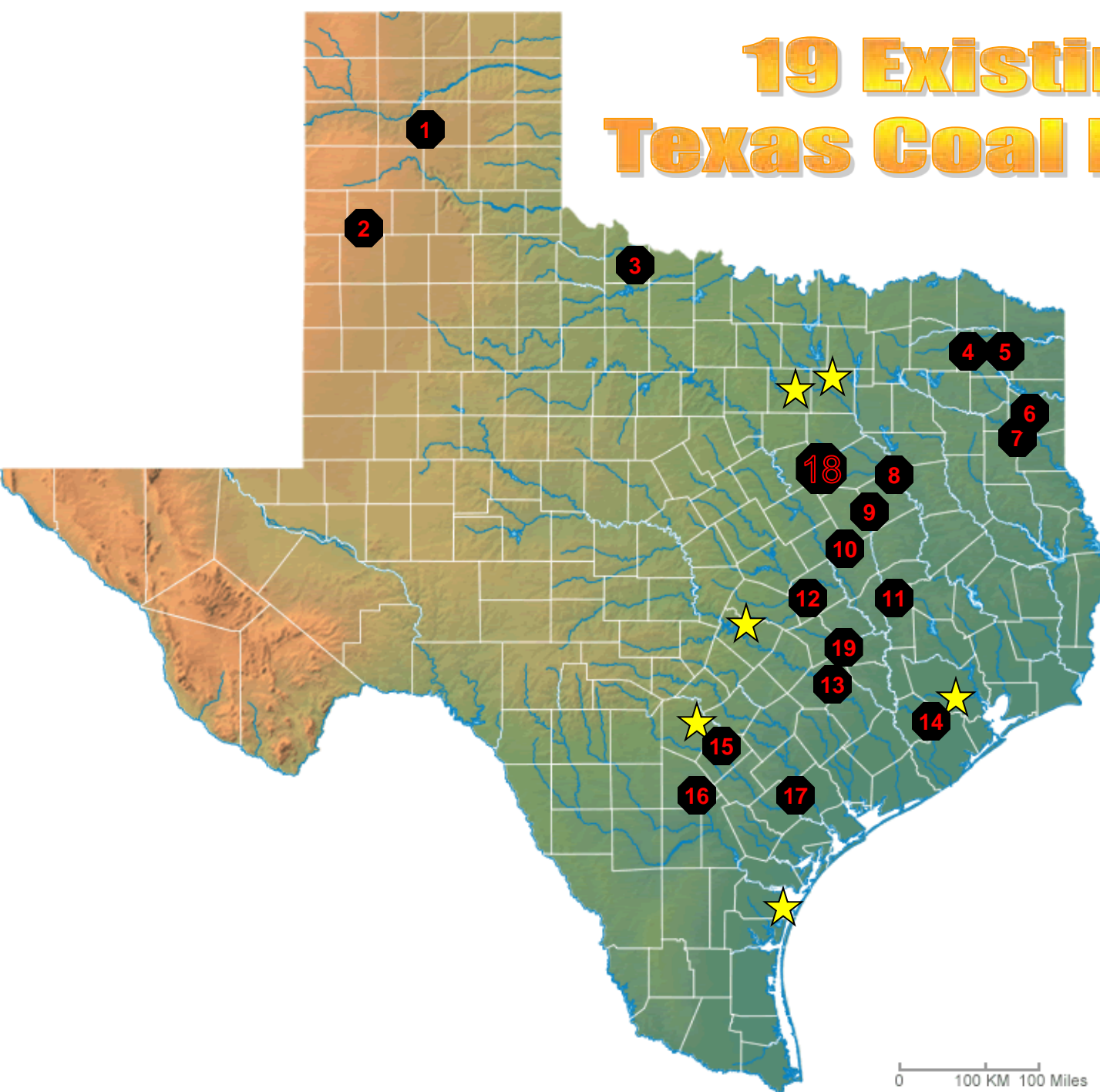
# Texas by the Numbers

**Are we making progress? You decide.**

|                                     | <b>Texas Rank</b> | <b>Texas Rank</b> |
|-------------------------------------|-------------------|-------------------|
|                                     | <b>2000</b>       | <b>2009</b>       |
| <b>NOx emissions</b>                | <b>1</b>          | <b>1</b>          |
| <b>SO2 emissions</b>                | <b>5</b>          | <b>3</b>          |
| <b>CO2 emissions</b>                | <b>1</b>          | <b>1</b>          |
| <b>VOC* emissions</b>               | <b>1</b>          | <b>1</b>          |
| <b>Particulate emissions (PM10)</b> | <b>2</b>          | <b>1</b>          |
| <b>Emissions of toxic chemicals</b> | <b>1</b>          | <b>4</b>          |
| <b>Mercury emissions</b>            | <b>1</b>          | <b>1</b>          |

\* Volatile organic compounds

# 19 Existing Texas Coal Plants



1. Harrington
2. Tolk
3. Oklaunion
4. Monticello
5. Welsh
6. Pirkey
7. Martin Lake
8. Big Brown
9. Limestone
10. Twin Oaks
11. Gibbons Creek
12. Sandow
13. Fayetteville
14. Parish
15. Deely Spruce
16. San Miguel
17. Coletto Creek
18. Oak Grove
19. Sandy Creek



## Compared to 2,000 Facilities

# Big Three criteria emissions are 25.52% of TX's total emissions

Statewide comparison of Luminant to ~2,000 Texas Industrial Plants:

1. 185,665 tons total Luminant's Big Three SO<sub>2</sub> (33.8%)
2. 33,449 tons total Luminant's Big Three NO<sub>x</sub> (10.0%)
3. 126,825 tons total Luminant's Big Three CO (37.6%)
4. 732 tons total Luminant's Big Three VOCs (0.007%)
5. 6,150 tons total Luminant's Big Three PM<sub>10</sub> (11.4%)
6. 393 pounds total Luminant's Big Three Lead (0.01%)

**7. Total: 352,822 tons**



# Luminant's Pollution

## How Dirty are Luminant's Big Three Coal Plants in Texas?

### Statewide comparison of Luminant to 19 Texas Coal Plants:

1. 447,654 tons total Texas coal plant SO<sub>2</sub> (Luminant = 41.5%)
2. 109,386 tons total Texas coal plant NO<sub>x</sub> (Luminant = 30.6%)
3. 176,915 tons total Texas coal plant CO (Luminant = 71.7%)
4. 2,106 tons total Texas coal plant VOCs (Luminant = 34.8%)
5. 17,073 tons total Texas coal plant PM<sub>10</sub> (Luminant = 36.0%)
6. 3.12 tons total Texas coal plant Lead (Luminant = 6.3%)
7. **Total: 753,136 tons total Texas coal plant criteria emissions (46.85% of Tx)**



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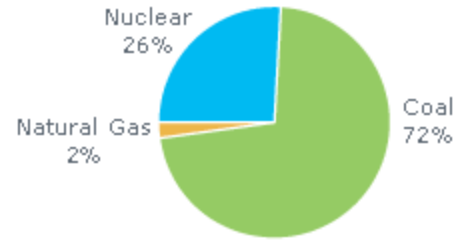
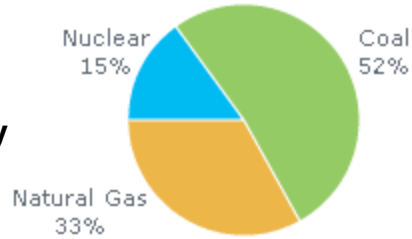
# ERCOT Region Map





# Who is Luminant?

## Generation Summary



| FUEL TYPE    | CAPACITY (MW) | NUMBER OF PLANTS | NUMBER OF UNITS |
|--------------|---------------|------------------|-----------------|
| Nuclear      | 2,300         | 1                | 2               |
| <b>Coal</b>  | <b>8,017</b>  | <b>5</b>         | <b>12</b>       |
| Natural gas  | 5,110         | 8                | 26              |
| <b>TOTAL</b> | <b>15,427</b> | <b>14</b>        | <b>40</b>       |



# Luminant's falling

Big Brown is the target, but Monti 1 and 2 announced idle with CSAPR  
Support EPA to do the work



Regional and Local media

Organize townhalls  
In East Texas, and Dallas

Litigation,  
Ensure Texas doesn't bail them out

Framework: Federal rules force Luminant to invest in pollution control and they're near bankrupt

Narrative: Luminant is the worst polluter in Texas; Luminant has broken its promise to clean up; Luminant wants special treatment



## The Rules Are Doing A Lot Of Work For Us

Coal will soon abide by air quality regulations that, for the most part, the rest of industrial America complies with already.

- Cross State Air Pollution Rule (“CASPER” for SO<sub>2</sub>, NO<sub>x</sub> ozone) (2011 (final) – stayed but this is what prompted Luminant to announce idling of 2 units (1200 MW); unfortunately, now also put on hold)
- Air Toxics/EGU MACT (Acid Gases, Mercury, Dioxin, etc) (2014 compliance)
- Haze FIP May 2015 (Luminant and Fayette subject to this); partial FIP says comply with CSAPR – very unclear what this means for Texas
- 1 hour NO<sub>x</sub>/SO<sub>2</sub> National Ambient Air Quality Standards (2010 (final) – NO<sub>x</sub> 2021/22 compliance; SO<sub>2</sub> compliance 2017 (SIPS due 2013/14)) We’ve already modeled exceedences
- Water Pollution / Water Use

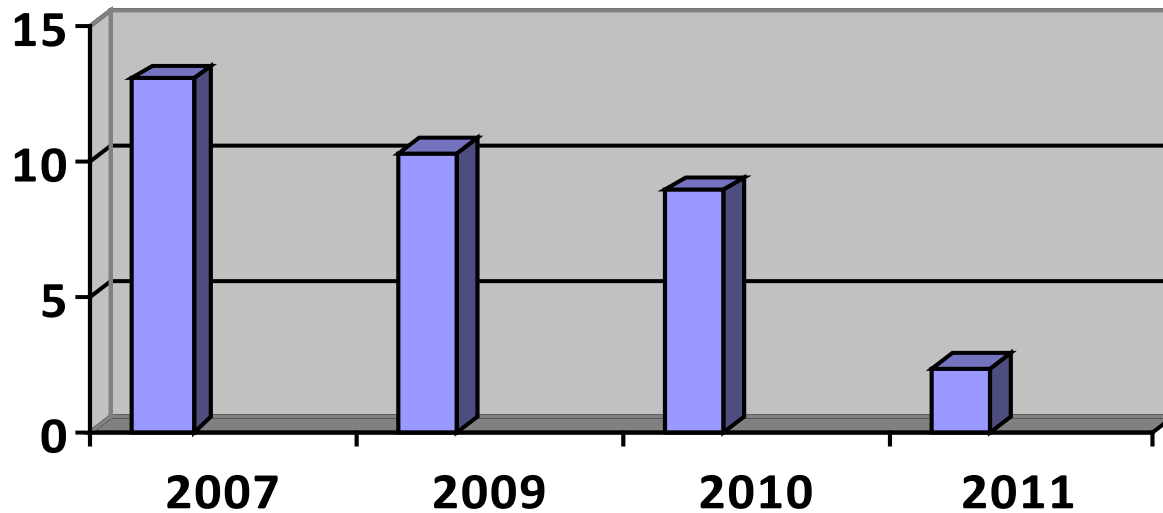


# What Costs Would Be Incurred?

## \$3.6 billion

| Plant         | FGD Scrubber SO2 | Activated Carbon Injection Mercury | ESP Particulates Mercury | SNCR NOx | SCR NOx | Baghouse Mercury |
|---------------|------------------|------------------------------------|--------------------------|----------|---------|------------------|
| Martin Lake 1 | X                | X                                  | X                        |          |         |                  |
| Martin Lake 2 | X                | X                                  | X                        |          |         |                  |
| Martin Lake 3 | X                | X                                  | X                        |          |         |                  |
| Monticello 1  |                  | X                                  | X                        | X        |         |                  |
| Monticello 2  |                  | X                                  | X                        | X        |         | X                |
| Monticello 3  | X                | X                                  | X                        | X        |         | X                |
| Big Brown     |                  | X                                  | X                        | X        |         | X                |
| Big Brown     |                  | X                                  | X                        | X        |         | X                |

**Chart 2: Big Brown, Martin Lake and Monticello Coal Plant Values (\$ billions)**



What do we different for 2013?

We're more aggressive;

We get another financial report out earlier  
and push it with a wider range of electeds;

We work with the unions on a just transition;

We retire 2400 MW of dirty old coal by 2016.



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