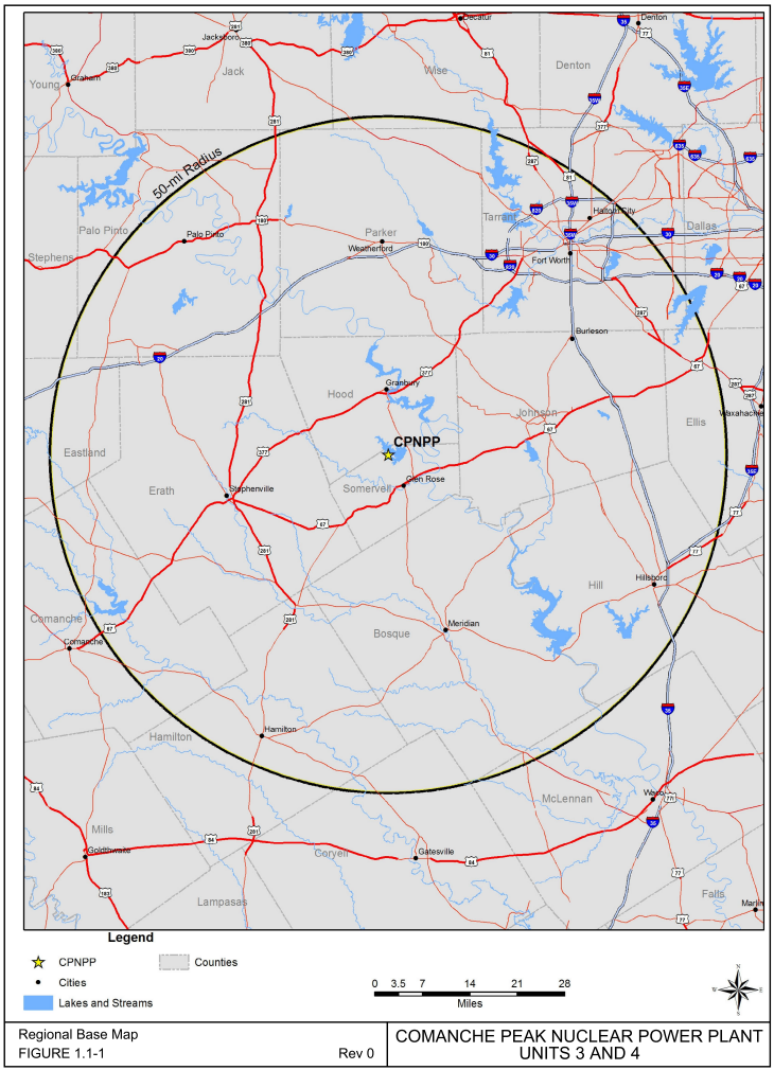
# Luminant's Nuclear Reactors…What is Proposed
## Derived from Combined Operating License Application

**Applicant and Owner**
Luminant Generation Company LLC is applying to the Nuclear Regulatory Commission (NRC) for Combined Operating Licenses to build and operate two new nuclear reactors, Units 3 and 4, at the Comanche Peak Nuclear Power Plant (CPNPP). The proposed two nuclear reactors would be built in Hood and Somerville Counties in north central Texas, 5.2 miles north of Glen Rose and 9.6 miles south of Granbury. Granbury is the largest city within a ten-mile radius and the four largest population centers in the region are Fort Worth, Haltom City, Burleson, and Cleburne.

Luminant, a subsidiary of Energy Future Holdings (formerly TXU Corp.) would be the applicant, owner and operator.



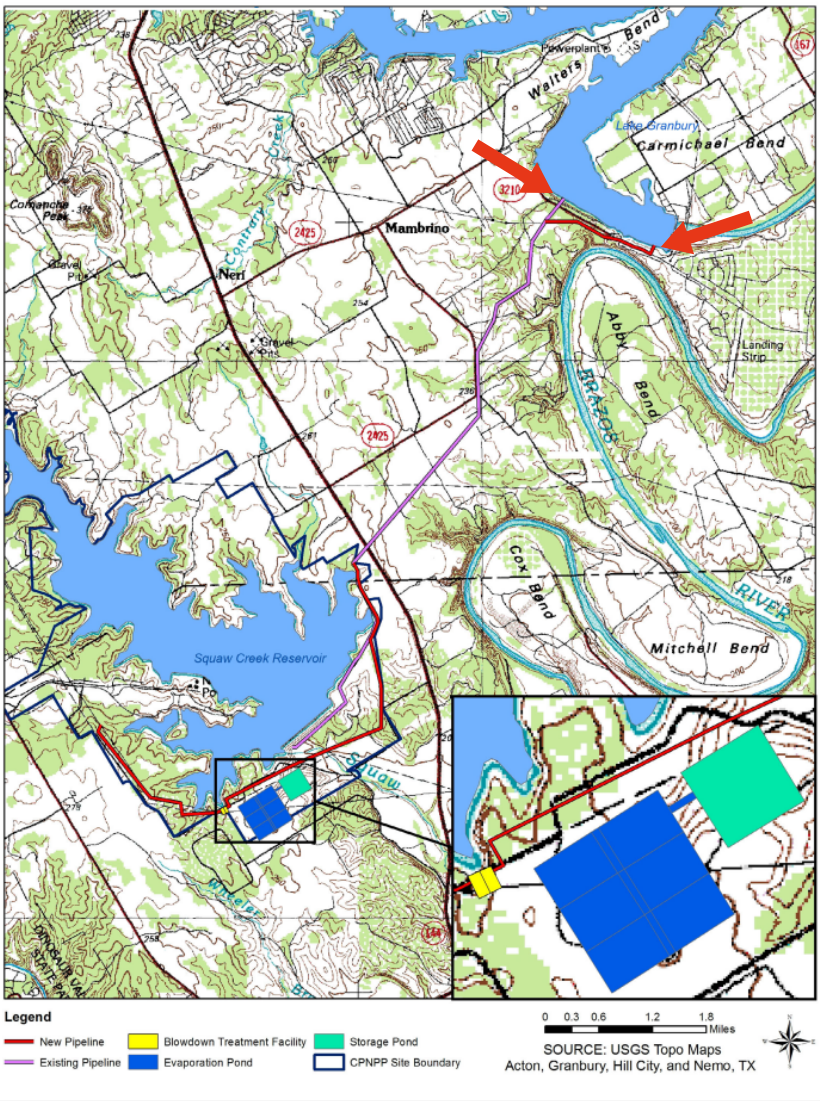

**Site Location**
The reactors would be located on 7,950 acres along the southern banks of Squaw Creek Reservoir. The site would encompass the entire Squaw Creek Reservoir and would utilize areas of previous construction within the CPNPP boundary along with previously undisturbed land.

**Reactor Information**
The reactors would be US-APWR units - Advanced Pressurized Water Reactors – built by Mitsubishi Heavy Industries.

**Output**
Each reactor would have a net electrical output of approximately 1600 megawatts electrical (MWe).

**Transmission**
Two new 345-kilovolt (kV) transmission lines may be required to carry the power generated by Units 3 and 4. The major additions anticipated by Luminant are:

- New double-circuit 345-kV line to Whitney, a new corridor may be required.
- New 345-kV circuit to Johnson Switch on existing structures
- New 345-kV circuit to Everman on existing structures
- New double-circuit 345-kV circuit to DeCordova, a new corridor may be required.
- New 345-kV line to Parker Switch on existing structures




Off-site Cooling Water Pipelines
FIGURE 1.1-4 Rev 0

COMANCHE PEAK NUCLEAR POWER PLANT
UNITS 3 AND 4

## Cooling / Water

The Squaw Creek Reservoir is a key component of the cooling systems for Units 1 and 2. Waste heat for Units 3 and 4 would be dissipated by a secondary side cooling water system consisting of a closed loop system with mechanical draft (wet) cooling towers.

Makeup water for the cooling towers would be withdrawn from Lake Granbury and transported by pipelines to the cooling towers. Intake structures from Granbury Lake are shoreline structures with fine mesh screens.

Cooling tower blowdown would be transported by return pipelines back to Lake Granbury to ensure water quality of the Squaw Creek Reservoir. The cooling tower blowdown would be returned to Lake Granbury through multi-port diffusers (indicated by red arrows in picture).

The design of the US-APWR does not require building an additional Safe Shutdown Impoundment to those used by Units 1 and 2, which will be the Ultimate Heat Sink for Units 3 and 4 also.

## Construction Overview

The scheduled start date for actual site preparation is the fourth quarter of 2009. Completion would be during the second quarter of 2018.

| | ***Start date*** | ***Finish date*** |
|---|---|---|
| ***Activity Unit 3*** | | |
| - Site preparations | 4th qtr 2009 | 3rd qtr 2012 |
| - First concrete | 4th qtr 2012 | |
| - Site construction to fuel load | 4th qtr 2012 | 3rd qtr 2016 |
| - Fuel load start-up | 4th qtr 2016 | 3rd qtr 2017 |
| - Commercial operation | 4th qtr 2017 | |
| ***Activity Unit 4*** | | |
| - Site preparations | 2nd qtr 2012 | 3rd qtr 2013 |
| - First concrete | 4th qtr 2013 | |
| - Site construction to fuel load | 4th qtr 2013 | 3rd qtr 2017 |
| - Fuel load start-up | 3rd qtr 2017 | 2nd qtr 2018 |
| - Commercial operation | 2nd qtr 2018 | |

## Cost

Based on a Luminant factsheet provided at the NRC Comanche Peak Public Meeting on June 12, 2008, the two reactors could cost as much as $22 billion.