SUBJECT: Permits for certain engines used in combined heating and power systems

COMMITTEE: Environmental Regulation — favorable, without amendment

VOTE: 5 ayes — W. Smith, Aliseda, Chisum, Legler, Lyne

0 nays

4 absent — Farrar, Burnam, Hancock, Reynolds

WITNESSES: For — Rich Herweck, Tommy John, Texas Combined Heat and Power Initiative; (*Registered, but did not testify:* Chrissy Borskey, General Electric; Cyrus Reed, Lone Star Chapter, Sierra Club; Robin Schneider, Texas Campaign for the Environment; Tom "Smitty" Smith, Public Citizen; Bill Stevens, Texas Alliance of Energy Producers)

Against — None

On — (*Registered, but did not testify:* Steve Hagle, Texas Commission on Environmental Quality)

BACKGROUND: Combined heat and power (CHP) systems, also known as cogeneration systems, generate electricity and thermal energy in a single, integrated system. CHP systems use onsite generators to produce electricity and heat-recovery technologies to collect and utilize waste heat from the generator. CHP systems capture the heat that otherwise would be lost in the traditional generation of electricity. The thermal energy recovered in a CHP system can be used for heating or cooling.

DIGEST: HB 3268 would require the Texas Commission on Environmental Quality (TCEQ) to issue a standard permit or permit by rule for stationary natural gas engines, excluding a natural gas engine that powered a motor vehicle, used in a CHP system that would establish emission limits for air contaminants released by the engines.

In adopting a standard permit or permit by rule, TCEQ could consider:

- the location where a stationary natural gas engine could be used, including the proximity to a nonattainment area;

- the total annual operating hours of a stationary natural gas engine; the technology used by a stationary natural gas engine;
- the types of fuel used to power a stationary natural gas engine; and
- other emission control policies of the state.

TCEQ would not be able to not distinguish between the end-use functions powered by a stationary natural gas engine.

TCEQ would have to provide for the emission limits for stationary natural gas engines to be measured in terms of air contaminant emissions per unit of total energy output and would have to consider both the primary and secondary functions when determining the engine's emissions per unit of energy output.

TCEQ would be required to adopt any rules by September 1, 2012.

The bill would take immediate effect if finally passed by a two-thirds record vote of the membership of each house. Otherwise, it would take effect September 1, 2011.

SUPPORTERS SAY:

CHP systems offer many positive benefits related to fuel efficiency, water conservation, and local economic development. All power plants must emit a certain amount of heat during electricity generation. CHP captures some or all of the byproduct heat for heating and cooling purposes. By capturing the excess heat, CHP uses heat that would be wasted in a conventional power plant, potentially reaching an efficiency of up to 89 percent, compared with 55 percent for the best conventional plants. This means that less fuel is consumed to produce the same amount of useful energy.

Despite the many benefits of CHP, current air permit policy is strenuous and significant impedes CHP development in Texas. Once a waste heat-capture unit is placed on a stationary engine or turbine, it is considered an electric-generating unit. An entity applying for a permit for a CHP unit must accept the criteria for the standard permit for an electric-generating unit or undergo the full permitting process, which can be time consuming and expensive, especially for a small system. Today, CHP competes with coal for the base-load power market, and has a much lower environmental impact, but strenuous and unrealistic standards discourage its development.

HB 3268 would require TCEQ to develop a standard permit or permit by rule for stationary natural gas engines and combustion turbines that would account for the emission control policies of the state, including fuel type, technology, operating hours, and location, but not end use. Emission limits would be specified in terms of emissions per unit of total output, including thermal and electrical energy. This would simplify the rules for adding CHP to an existing facility, which would encourage the development of CHPs.

While there are concerns that HB 3268 could weaken public-notice requirements when a CHP was added to an existing facility, CHP actually benefits the environment because it captures and reuses the excess heat that would be wasted in a conventional power plant, increasing the efficiency of that power plant and reducing the overall emissions and fuel consumption. Also, CHP facilities are added onto existing facilities that have already undergone the permitting and public-notice process.

OPPONENTS SAY:

Requiring TCEQ to develop a standard permit or permit by rule for stationary natural gas engines and combustion turbines could weaken public-notice requirements when a CHP was added to an existing facility. Currently, a CHP facility has to go through case-by-case permits, which require public notice. Public notice may or may not be required under a standard permit and would not be required under a permit by rule.

NOTES:

According to the fiscal note, HB 3268 would not have a significant fiscal implication for the state, and any costs to TCEQ in implementing the requirements of the bill could be absorbed using existing agency resources.