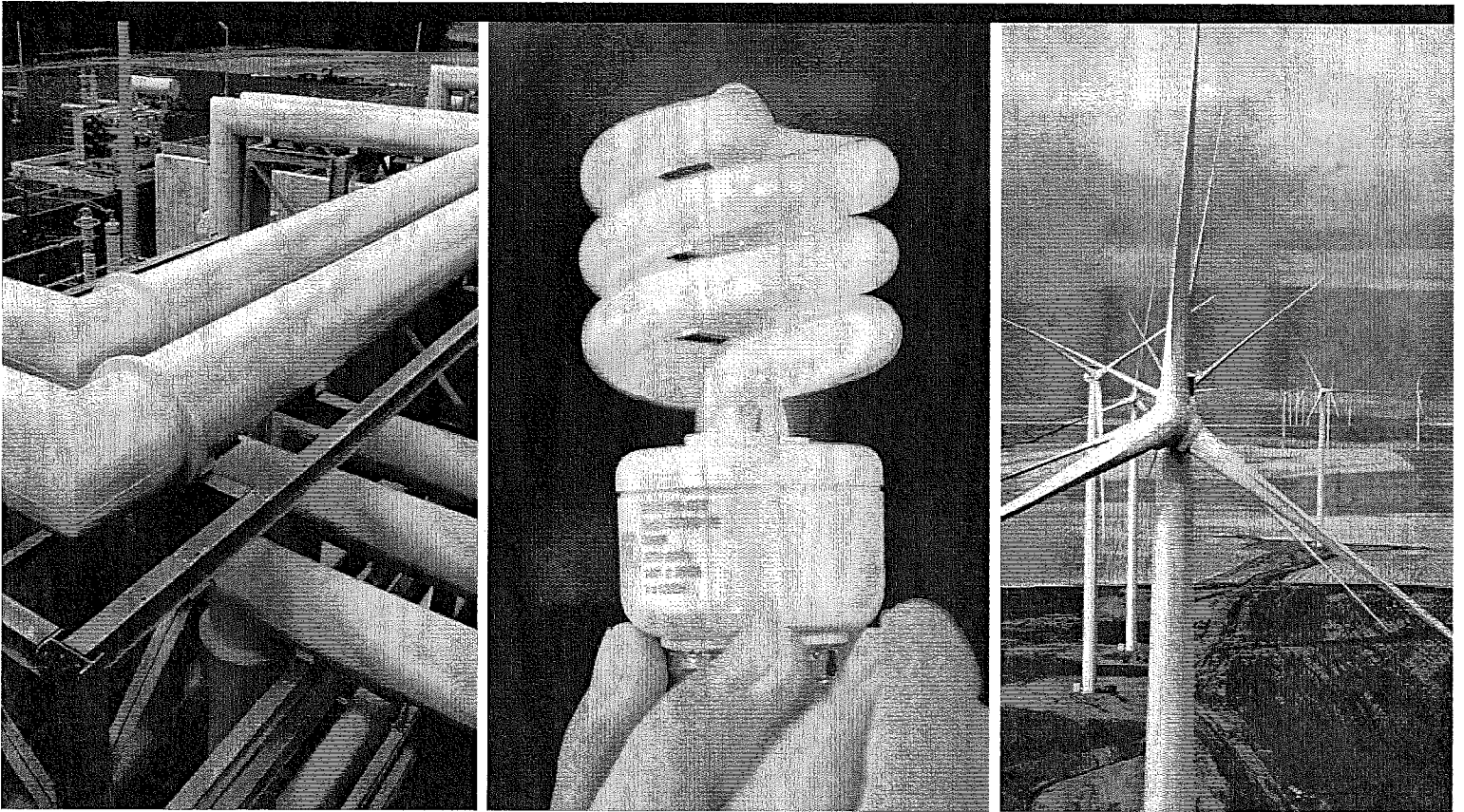


Integrated Resource Plan 2009



Portland General Electric

12.1 Boardman Plant Overview

Boardman is a pulverized-coal plant located in north-central Oregon approximately 13 miles southwest of the city of Boardman, and 160 miles east of Portland. It went into service in 1980. Its expected plant life extends through at least 2040. Coal for Boardman is transported by rail from the Powder River Basin (PRB) coal mines of central Wyoming. PGE is the operator of the plant, and we have a 65 percent ownership interest, or 380-MW share of the plant output. Forecasted average annual energy availability for PGE's share is 318 MWa. The 585-MW net capacity output serves the equivalent of about 341,500 residences.

The Boardman area was chosen for the plant's location because it has good access to land, water, transmission and rail transportation. A large cooling pond, Carty reservoir, was built to provide cooling water for the plant. The pond eliminates the need for returning cooling water to natural streams or rivers, thus avoiding discharge that might impact fish and wildlife. It also minimizes the draw on river water.

The fuel is a low-sulfur sub-bituminous coal, primarily from the PRB mines. Coal is transported to the plant by railcar. Boardman can stockpile up to 400,000 tons of PRB coal at the on-site coal yard, the equivalent of 55 days at full operations.

Boardman typically shuts down once a year in the spring to perform its annual planned maintenance. The plant is primarily a base-load resource, but is economically dispatched during some periods where regional loads and prices are low. Economic dispatch and load cycling generally occurs only in the spring.

12.2 Oregon Regional Haze Plan

Section 169A of the Federal Clean Air Act (as implemented through 40 CFR 51.308) requires that Oregon adopt and implement a plan to reduce visibility impacts in designated areas (referred to as Class I areas) to background levels by 2064. Oregon's plan to achieve this visibility goal is referred to as the Oregon Regional Haze Plan or the Plan. The Oregon Department of Environmental Quality (DEQ) issued a draft Oregon Regional Haze Plan for public comment in December 2008. The Plan included rules that would require specific emission reductions at the Boardman plant by dates identified in the proposed rules. During the public comment period PGE proposed an alternative approach whereby PGE would have to decide, at dates certain, to either proceed with the next phase of controls or cease operations at the Boardman plant by a specific date after the date that controls were otherwise required. This plan would have provided PGE the flexibility to address the general uncertainty associated with future electric prices and potential changes in legislation impacting generation.