

Case: coal and variance

Business



INTRODUCTION Background of Company Luotang Power is a coal-fired power plant located in central China.

This company is a subsidiary of China Hua Tong Power (HT Power). The main activity of this company is to generate electricity. Luotang Power operates using a 600 MW coal-fired power plant and sells the generated power to their primary customer, the Hubei Provincial Power Company (HPPC). HPPC was the only company in Hubei Province that owned all the power transmission and distribution facilities and independently owned power plants operating in the province.

The coal is supply by Pingdingshan and according to the contract, it is required to supply low sulfur bituminous coal that met certain quality specifications. Main Issue and Problems Based on this case, the main issue is regarding to the company performance that not shows the positive performance of the company in the financial results.

The issue is related on how Mr. Tan have to do in order to show that the company is still in a good performance. There is also an issue regarding to their supplier, Pingdingshan that supply a low quality coal but in a higher price than the prior year.

Therefore, in our case study, we conclude that we need to do a variance analysis to better understand the plant performance compared to the previous year. The main problem in related to this case is about the falling in revenues, the performance of coal-plant, the price of coal and the quality of coal. All of this problem will be answered in the next sections in the qualitative analysis of Luotang Power.

VARIANCE ANALYSIS QUANTITY VARIANCE The variance analysis is defined as the difference between the expected amount and the actual amount of costs or revenues.

Variance analysis uses this standard or expected amount versus the actual amount to judge performance. The analysis includes an explanation of the difference between actual and expected figures as well as an evaluation as to why the variance may have occurred. The purpose of this detailed information is to assist managers in determining what may have gone right or wrong and to help in future decision-making

Quantity Variance = (Net Generation MWh in Current Year - Net Generation MWh in Prior Year) x Price per MWh in Prior Year

2011 $(3,427,351 - 3,937,377) \times (0.3817) = 194,676$ MWh (unfavorable)

2010 $(3,937,377 - 3,028,690) \times (0.4186) = 380,376$ MWh (favorable)

Based on analysis of quantity variance, in 2011 showed that unfavorable variance quantity of 194,676 MWh due to a decline in revenue from year 2010 to 2011.

While in 2010 the quantity of variance showed favorable 380,376 MWh due to increased sales from year 2009 to 2010.

PRICE VARIANCE Price variance = (Price per MWh in Current Year - Price per MWh in Prior Year) x Net Generation MWh in Current Year

2011 $(0.3974 - 0.3817) \times (3,427,351) = 53,809$ (favorable)

2010 $(0.3817 - 0.4186) \times (3,937,377) = 145,289$ (unfavorable)

For price variance, in 2011 showed favorable of 53,809 because the average price for all electricity sold increased from year 2010 to 2011.

While in 2010 showed unfavorable of 145 289 because electricity sold decrease from year 2009 to 2010. Although a decline amount sold in 2011 but is in line with price increases offered electricity and vice versa in 2010 where amount sold increased but in low price offered. The unfavorable amount quantity variance also in in line with favorable amount price variance in year 2011 and vice versa in year 2010 where favorable amount quantity variance in line with unfavorable amount price variance.

FUEL EFFICIENCY VARIANCE For the fuel efficiency variance it is based upon the quantity of coal used to generate each MWh of electricity sold to HPPC nothing that some of the electricity generated at the plant was actually used internally and , each generated cannot be stored. It can be define as: Fuel Efficiency Variance = (Mass of coal used per net MWh sold this year - Mass of coal used per net MWh sold last year) x MWh sold this year x Price of coal last year 2011 (346-347) x 3, 427, 351 x 0.

4219 = 1, 446, 000 (unfavorable) 2010 347-342) x 3, 937, 377 X 0. 4200 = 8, 268, 491. 70 (favorable) Based on Fuel Efficiency Variance in year 2011 it showed that unfavorable variance that 1, 446, 000RMB/MWh due to decline from the year 2010 to 2011. While in 2010 the fuel efficiency variance showed favorable 8, 268, 491RMB/MWh due from year 2009 to 2010. From that it clearly that Lutong Power have used the coal not in effectively because the total of generate each MWh of electricity has been decrease favorable 8258491. 70 in year 2010 to unfavorable 1, 446, 000 in year 2011.

FUEL COST VARIANCE

For the Fuel Cost Variance it is based upon the price of coal purchased but also taking changes in market price for coal and the coal delivery into account. This can be define as: Fuel Cost Variance = (Price coal this year - Price of coal last year) x Mass of coal used per MWh sold this year x MWh sold this year 2011 (0. 4238-0. 4219) x 346 x 3, 427, 351 = 2, 253, 141 (favorable) 2010 (0. 4219-0.

4200) x 347 x 3, 937, 377 = 2, 595, 913 (favorable) Based on analysis of fuel cost variance, in year 2011 show that favorable variance of fuel cost of 2, 253, 141RMB due to decline from the year 2010 to 2011.

While in year 2010 the fuel cost variance showed favorable 2, 595, 913RMB due from year 2009 to 2010. Conclusion As conclusion, Tan Min Yi as the general manager of the Luotang Power Company has satisfied with the presentation prepared for the second time to make a presentation to the Board of Directors of his parent company, China Hua Tong Power (HT Power). The last time financial report doesn't show the best of his company's current year performance. From the main issue, we have found out that Luotang Power is in a good performance but it does not shown in their financial results.

This case study is helpful enough to Mr.

Tan to improve what is needed. With a few way of solution like the variance analysis might show the way to Mr. Tan to take a step to correct the problem arised. The variance analysis show the variance calculation applied by the company to measure the current performance. Quantity variance, price variance, fuel efficiency variance, and fuel cost variance are among the

important variance needed to be view and measure for the performance purpose.