

Model perhitungan tarif pengangkutan gas bumi melalui pipa transmisi open access dengan sistem multi tarif = Tariff calculating model for natural gas transportation through open access transmission pipeline with multi tariff system

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Abstrak

Dalam riset ini akan dilakukan pemodelan perhitungan tarif pengangkutan gas bumi melalui pipa untuk beberapa golongan shipper dalam suatu ruas pipa transmisi open access. Pemodelan dilakukan untuk memperoleh pembagian tarif sesuai dengan golongan shipper. Pemodelan multi tarif dilakukan dengan mengembangkan model dari perhitungan sistem single tarif melalui modifikasi pembagian volume pengaliran gas bumi sesuai golongan shipper. Hasil penerapan multi tarif pada ruas pipa transmisi PT X menunjukkan penurunan tarif antara 20 hingga 70 pada masing-masing golongan shipper bila dibandingkan dengan sistem single distance tarif dan single postage stamp tarif yang sebelumnya telah diterapkan pada pipa transmisi tersebut. Untuk melihat pengaruh perubahan volume, perubahan Internal Rate of Return IRR, dan perubahan komposisi equity terhadap perubahan besaran multi tarif maka dilakukan uji sensitivitas. Hasil perhitungan menunjukkan kenaikan nilai IRR berbanding lurus terhadap kenaikan multi tarif. Kenaikan IRR membuat waktu pengembalian modal Break Even Point menjadi lebih cepat, kenaikan volume gas berbanding terbalik terhadap multi tarif dan penurunan proporsi equity berbanding lurus dengan penurunan multi tarif.

.....In this research will be modeling the calculation of the tariff of natural gas transportation through pipes for several classes of the shipper in an open access pipe transmission line. Modeling to obtain tariff distribution according to shipper class. Multi tariff modeling by developing a model of single tariff system calculation through modification of natural gas distribution volume according to shipper class. The result of the multi tariff application on the PT X transmission pipeline shows a tariff reduction of between 20 and 70 on each shipper class when compared to the single distance tariff system and the single postage stamp tariff previously applied to the transmission pipe. To see the effect of volume change, change of Internal Rate of Return IRR, and change of equity composition to change of multi tariff quantity hence conducted sensitivity test. The calculation result shows the increase of IRR value is directly proportional to the multi tariff increase. Increased IRR makes Break Even Point time faster, increases in gas volume inversely to multi tariffs and a decrease in the proportion of equity is directly proportional to the multi tariff reduction.