

Abstract This thesis deals with the impact of weather on the natural gas market. We describe the development of the natural gas market in recent past and its current structure. Both these contingencies contributed to growing importance of hedging against weather risk today. Consequently, with help of regression models we assess the dependency of Czech natural gas consumption on temperature, which is unambiguously the primary determinant of demand in the natural gas market. Such an analysis frequently serves as the first indicator of the need for weather risk hedging, which is since the 90's commonly done with weather derivatives. Therefore we go through so called burn analysis that determines the fair price of an option with regard to past temperature measurements.