

Project Initialization and Planning Phase

Date	15 july 2024
Team ID	739907
Project Name	price prediction of natural gas using machine learning approach
Maximum Marks	3 Marks

Define Problem Statements (Customer Problem Statement Template):

The natural gas market is characterized by significant price volatility due to a variety of complex, interrelated factors such as weather patterns, geopolitical events, supply and demand dynamics, and market speculation. Traditional statistical and econometric methods often fall short in accurately predicting these price movements because they are not well-equipped to handle the non-linear and high-dimensional nature of the influencing variables. Therefore, the specific problem we aim to address is:

How can machine learning techniques be applied to predict natural gas prices more accurately than traditional methods by effectively capturing and modeling the complex relationships among the various influencing factors?

Customer Problem Statement

I am

I'm trying to

But

Energy analyst, traders, and companies dependent on natural gas prices

Accurately predict the future prices of natural gas to make informed trading and operational decisions

Current prediction methods are inaccurate and fail to account market factors

Example:

Problem Statement (PS)	I am (Customer)	I'm trying to	But	
PS-1	Energy analyst	Predict the future price of natural gas	That is complex and dynamic market traders	Traditional methods and various influences
PS-2	General user of natural gas	Know the price of natural gas for daily use	I don't know proper method to predict	There are many factors