Electronic Health Records (EHRs) represent an encompassing look at a patient’s clinical disease trajectory. Transformer-based models using EHRs have become a powerful tool to leverage in the prediction of disease. Thus far, these models have focused on using ICD (International Classification of Disease) codes along with natural language EHRs, such as medical notes, for pre-training. A key limitation in existing models is their inability to include external covariate data in the existing model structure. We are aware of the relationship between clinical disease and environmental covariates, namely the effects of pollution on clinical disease and patient outcomes making it imperative to include when predicting patient outcomes. To address this gap in the literature, we present TransformxClimate, a generative encoder model built to predict clinical disease of a patient during a future time point using EHRs and environmental covariate data from previous time points. Compared to other transformer-based models TransformxClimate improves the area under the precision-recall curve by \_\_% for pulmonary disease. The high performance of TransformxClimate in predicting pulmonary disease shows the potential of TransformxClimate in assessing Environmental policy recommendations.