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Presenting Author	Sotiris Kyprianou
Title of Presentation	Pathways towards zero-carbon
Oral or Poster Presentation?	Oral presentation

Summary:

During my master thesis at the University of San Francisco I have developed a model to simulate the electricity market of Cyprus based on future needs of electricity. This model was pivotal in presenting specific simulations on Cyprus's pathways towards a zero-carbon future, which I showcased in 2019. For those interested, I have published my master thesis, which can be accessed [here](#).

I'm excited to share that this model has since been updated with more recent data. In the upcoming conference, I will be presenting the results of the 2030 pathways towards zero-carbon. While I aim to provide insights into the 2040 pathways, I must mention that the full results for this might not be ready in time. However, I will ensure to present as much as I can.

In my presentation, attendees can expect a deep dive into the methodology I employed to develop this model. A significant highlight will be the innovative use of optimization in resource planning, a concept that is relatively new to Cyprus. I will also be analyzing the current load and resources of the Cyprus system. Furthermore, I've introduced a groundbreaking methodology for load forecasting in Cyprus, which factors in Heat Pumps and Electric Vehicles – a first of its kind in Cyprus also.

The results from my model are multifaceted. They shed light on the cost savings achieved by introducing Natural Gas into the current electricity mix. Additionally, they highlight the CO2 reduction and cost benefits that can be reaped by increasing the RES share. I will also be discussing the cost savings derived from the current Renewable Energy Sources in the system and the potential impact that energy storage could have by 2030. These are pressing questions that many stakeholders have, and I believe my presentation will provide clarity on these topics.

In conclusion, my presentation at the CIGRE conference will offer a comprehensive look into the future of Cyprus's electricity market and its journey towards a sustainable, zero-carbon future.