

IV. CONCLUSION

For this study, solar global irradiance prediction with fuzzy logic was developed. The data of solar radiation was obtained from meteorological stations and was helpful to predict global solar irradiance with regressors. This prediction allows calculating the energy produced by a photovoltaic system over time. In addition, measuring the load demand is useful to determine the amount of excess or missing energy in a photovoltaic system connected to the grid. This quantified energy over time and through the tariff imposed by the electricity companies represents money saved or spent to power load over time, and with this, the profitability of the photovoltaic project can be calculated. Also, the prediction of energy produced compared to the load allows determining a suitable number of photovoltaic panels to avoid possible oversizing or to know the possible lack of energy capacity. The number of panels calculated also predicts the availability of space for their installation.

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