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**Application of engineering management principles to energy systems modelling projects**

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This paper investigates how the integration of engineering management principles can enhance the efficiency, robustness, and impact of energy systems modelling projects. Using South Africa's evolving electricity sector as a contextual anchor—marked by a legacy dependence on coal and a recent increase in renewable energy deployment—the study addresses persistent challenges in energy systems modelling projects, including data quality limitations, technical complexity, and stakeholder misalignment. The study suggests that these challenges can be mitigated through a structured application of engineering management principles across the energy systems modelling project lifecycle. Employing a mixed-methods approach, the study synthesizes quantitative and qualitative insights from 55 energy sector professionals. The findings reveal widespread support for a formalized framework and highlight the critical role of project planning, risk management, systems thinking, and inclusive stakeholder engagement. Together, these principles offer a cohesive strategy for bridging the gap between technical modelling activities and effective managerial execution in support of sustainable energy planning.