V. Conclusion

A total of 810 knowledge-based decision rules were developed for the Expert System (ES) model, which govern the technical, financial and risk aspects of hydro, wind, solar PV and solar CSP projects. The ES system generates an output for the user in the form of an expert analysis using these decision rules. The comparative assessments (shown in Tables V and VI) demonstrated the fact that there was a strong similarity between the results of the Expert System and the findings of real-world experts who had worked on the Tarbela Dam Project. In cases where factual data was not available, certain assumptions were made as suggested by the AI of the Expert System in order to complete the analysis. The similarity between the results of both datasets shows that a knowledge-based approach can indeed be useful for solving problems faced by the renewable energy industry. However, such an Expert System needs to be thoroughly tested using data from multiple real-world projects in order to ensure that it will generate valid and acceptable results when used in practical situations.

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Biography

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