

GIS Data Governance: GIS Data Submission Process for Build-in Project, Replacement Project at Oman electricity Transmission Company

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Abstract : Oman Electricity Transmission Company's (OETC) vision is to be a renowned world-class transmission grid by 2025, and one of the indications of achieving the vision is obtaining Asset Management ISO55001 certification, which required setting out a documented Standard Operating Procedures (SOP). Hence, documented SOP for the Geographical information system data process has been established. Also, to effectively manage and improve OETC power transmission, asset data and information need to be governed as such by Asset Information & GIS department. This paper will describe in detail the current GIS data submission process and the journey for developing it. The methodology used to develop the process is based on three main pillars, which are system and end-user requirements, Risk evaluation, data availability, and accuracy. The output of this paper shows the dramatic change in the used process, which results subsequently in more efficient, accurate, and updated data. Furthermore, due to this process, GIS has been and is ready to be integrated with other systems as well as the source of data for all OETC users. Some decisions related to issuing No objection certificates (NOC) for excavation permits and scheduling asset maintenance plans in Computerized Maintenance Management System (CMMS) have been made consequently upon GIS data availability. On the Other hand, defining agreed and documented procedures for data collection, data systems update, data release/reporting and data alterations has also contributed to reducing the missing attributes and enhance data quality index of GIS transmission data. A considerable difference in Geodatabase (GDB) completeness percentage was observed between the years 2017 and year 2022. Overall, concluding that by governance, asset information & GIS department can control the GIS data process; collect, properly record, and manage asset data and information within the OETC network. This control extends to other applications and systems integrated with/related to GIS systems.

Keywords : asset management ISO55001, standard procedures process, governance, CMMS

Conference Title : ICGISD 2022 : International Conference on Geographic Information System and Development

Conference Location : Lisbon, Portugal

Conference Dates : October 27-28, 2022