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Improving Early-Stage Cost Estimates for Utility Projects.

Executive Summary

Accurately estimating utility project costs in the early stages of the project lifecycle is difficult, with systematic assumptions leading to significant deviations for portfolio planning and budgeting. Traditional methods often fall short in early project stages, relying on limited data and subjective judgment, which can result in wide variances and uncertainty. Advances in machine learning offer a transformative solution: by analyzing patterns in historical project data, ML models can deliver more precise and reliable early cost estimates. This data-driven approach not only streamlines construction and reduces costs but also improves infrastructure quality. As the models mature, they could even enable near real-time cost simulation during program planning, which could revolutionize how utilities structure multi-year capital programs.

Continue reading.

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12/12/25

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