



Capacity Expansion Planning



Comprehensive, Data-Driven Approaches to Meet Future Electricity Demand

Capacity expansion planning is a critical simulation and strategic process that helps utilities proactively address increasing electricity demand across their service areas. By analyzing historical data, population growth projections, economic forecasts and other variables, utilities can identify when and where additional generation and transmission capacity will be required to ensure a reliable and uninterrupted power supply.

As a partner to the utility industry, TRC helps utilities determine the most efficient and cost-effective allocation of resources to meet future power demands, including identifying the optimal mix of power generation technologies. Our recommendations are based on technology availability, costs, environmental considerations and regulatory compliance. We actively engage with government agencies and local communities to ensure transparency and diverse perspectives. We also employ rigorous risk assessment and scenario analysis to navigate uncertainties and develop adaptable and resilient strategies for the evolving energy landscape.

TRC conducts capacity expansion studies to support:

Renewable Energy Integration – We identify the potential for incorporating renewables such as solar and wind into a utility's generation mix. We assess the technical, economic, and regulatory aspects of renewable energy integration and identify optimal capacity and location for proposed installations.

Cost Efficiency – Our studies optimize investment dollars by identifying the most cost-efficient expansion strategies. By accurately forecasting demand, evaluating different infrastructure options and considering factors like infrastructure costs, operational expenses, and fuel prices, we help utilities make informed decisions that minimize costs while maintaining reliable service and regulatory compliance.

Long-Term Planning – We can provide a long-term roadmap for infrastructure development for multiple years or even decades, allowing utilities to align their investments and strategies with long-term goals, sustainability targets, and evolving market conditions.

Grid Reliability and Resilience – We help utilities identify potential constraints or bottlenecks and propose upgrades or expansions to ensure reliable and efficient power delivery.

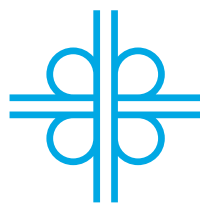
About TRC

Groundbreaker. Game changer. Innovator. TRC is a global firm providing environmentally focused and digitally powered solutions that address local needs. For more than 50 years, we have set the bar for clients who require consulting, construction, engineering and management services, combining science with the latest technology to devise solutions that stand the test of time.

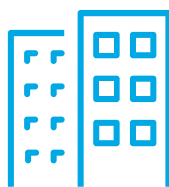
TRC's more than 7,000 professionals serve a broad range of public and private clients, guiding complex projects from conception to completion to help solve the toughest challenges. We break through barriers for our clients and help them follow through for sustainable results.



Power &
Utilities



Transportation



Real Estate



Government



Water



Environment & Sustainability



Digital Solutions