

USE CASE

Power Generation



Challenges

Regulatory environments that require "renewable energy" to address climate change pose significant challenges for electric utilities.

Utilities must find sources of generation such as wind, solar, and hydro-power, which are often located in remote areas away from transmission lines. The industry must also reduce coal emissions, which, in most cases, requires shutting down plants.

Requirements

The Small Modular Reactor (SMR) market has emerged as a solution to address increased demands for electrical power and clean energy – at an affordable price.

However, the market's ability to address these needs hinges on regulatory support from the Nuclear Regulatory Commission (NRC) and state governments, financing, and public acceptance.

Still, many utilities and emerging market-based energy producers are evaluating this technology. Recent announcements indicate plans to build new SMRs in Idaho, Wyoming Texas, Tennessee, and Virginia – backed by private venture capital.

Solution

Acuity International recognizes the challenges for utilities, states, or municipalities interested in deploying this new technology for generating clean energy economically.

First of a kind technologies often include risks, which may be too great for the utility or other organization to assume That's why we developed a tool to support the owners with a decision support to quantify risks and financial exposure. Our "Surety Model" identifies known and unknown risks specific to SMRS. Our surety model provides increased confidence in cost and schedules and provides an objective, independent assessment of the technology and worst-case scenarios of various risks and financing schemes.

Benefits

With Acuity, SMR owners can approach their regulators with an external independent analysis of cost and schedule to obtain approval for the project. EPCs can provide this analysis as part of their service offering.

Summary

With Acuity International's surety analysis, SMR owners, constructors, and state regulators can gain a level of confidence that SMR costs, schedules, risks, and financing will meet defined and contracted plans, allowing purchasers (owners) to move forward with SMR construction and siting plans.

Industries

- Utilities
- Petrochemical
- · Federal Government
- EPC Companies
- International Governments

Challenges

- Meeting renewable energy mandates and increased demand for clean energy
- Obtaining support for the SMR market from regulators, private investors, and the public
- Financing-venture capital and banks' concerns about nuclear facility costs

Solutions

Acuity International's surety analysis model is capable of modeling cost, risks, schedules, and financing based on the risks, markets, and events that were not analyzed during early cost development. With Acuity, SMR owners, constructors, and regulators gain a level of certainty that these variables will meet pre-defined plans and contract expectations.



