



KEY INSIGHTS

- Essential Complementary Strategic Transition Insights for Utilities
- Informed by and Informing Utility Planning and More
- Enhanced Opportunity and Risk Assessment and Risk Management
- Valuable Insights for Stakeholder and Customer Engagement and Collaboration

SMARTTargets: Integrating economy-wide greenhouse gas emissions transitions and risk into utility planning

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Overview

SMARTTargets is a methodology for grounded and actionable corporate greenhouse gas (GHG) emissions targets aligned with global climate goals. Limiting global warming to the Paris Agreement's global temperature goals of well-below 2°C and 1.5°C implies new regional economies, energy systems, and markets. To be fully informed, utility planning will need to evaluate potential regional economic and emissions transitions beyond their systems.

SMARTTargets provides essential complementary strategic transition insights: SMARTTargets is designed for insights broader than typical utility planning, with (1) regional, economy-wide, and long-run strategic insights, and (2) climate transition and target setting insights. The broad economic, energy system, and transition scenario scope, and the integration of GHG management considerations, provides insights that enhance utility planning and engagement (Figure 1). Using economy-wide modeling or leveraging utility planning tools, the SMARTTargets framework considers uncertainties in GHG abatement coverage and low-emissions technologies, scenarios that elucidate economy-wide enabling conditions and transition risks, and the incremental implications of increasing GHG reductions.

SMARTTargets regional economy-wide transition insights

- Economy and sector growth
- Energy markets (size, composition, prices)
- Low-carbon fuels production and markets
- End-use developments (services, technologies, fuels, demand responses)
- GHG reduction and technology transition pace and options
- Upstream and downstream GHG emissions and abatement
- Inter-regional transmission & power flows
- Economic interactions with neighboring regional transitions

Transition opportunities and risks for enhanced utility planning and engagement

SMARTTargets scenario design for broader strategic perspective

- Risk-based logic focused on the boundaries of potential transitions
- Explores uncertainties beyond company systems
- Identifies risks and risk management strategies, such as no regrets, enabling conditions, and contingency plans

Figure 1. SMARTTargets helps utilities evaluate economy-wide greenhouse gas emissions reduction transition and target opportunities and risks

SMARTTargets insights inform:

- Assessment of transition opportunities and risks,
- Identification of GHG target levels (potential interim and 2050 goals) and enabling conditions for ambitious corporate and economy-wide GHG reductions,
- Risk management strategies to address challenges and trade-offs with affordability, reliability, and local development, and
- Stakeholder and customer engagement and collaboration.

SMARTTargets implementation is informed by and informs planning and other utility activities: SMARTTargets leverages existing utility expertise and capabilities. The scenario design, scenario modeling analysis, and communications are informed by current utility planning activities, as well as other utility teams (Figure 2). In addition, SMARTTargets broad transition insights regarding opportunities and risks inform utility planning and engagement activities. For example, SMARTTargets modeling and scenario design (Figure 1) allows for the evaluation of plausible extremes for, among other things, future economies, electricity demand and prices, and fuel market changes (fossil and low-carbon), as well as affordability and investment risks.



Figure 2. SMARTTargets is informed by and informs utility planning, risk management, engagement, and other activities