



AI Opportunities for Southern Gas

Improving customer experience, reducing cost, and modernizing operations through AI and Agentic LLMs.

AI in Tier 1 Helpdesk Support

Artificial intelligence is transforming customer service operations for gas utilities, delivering 24/7 support while significantly reducing operational costs. Modern AI chatbots leverage natural language understanding to interpret customer inquiries about gas service issues, billing questions, and service requests with human-like comprehension.



24/7 AI Chatbots

Always-on customer support handling routine inquiries and service requests without wait times



Smart Routing

Automated issue classification directs complex cases to specialized agents instantly



Faster Resolution

Reduced call volume and accelerated response times improve customer satisfaction



Predictive Analytics

Customer data insights enable proactive outreach to address affordability concerns



AI for Software Testing

Revolutionizing Quality Assurance

AI-powered testing tools are transforming software quality assurance for utility operations. Machine learning algorithms automatically generate comprehensive test cases, identifying edge cases that human testers might overlook. Automated defect detection scans code and user workflows to catch bugs before they reach production environments.

The result is dramatically improved speed and coverage across testing cycles, with reduced manual effort for repetitive regression testing. AI can also create synthetic data that mimics real customer information for secure, compliant testing scenarios.



01

AI Test Generation

Automated creation of comprehensive test scenarios

03

Synthetic Data

Safe, compliant test data mimicking real customers

02

Defect Detection

Machine learning identifies bugs and vulnerabilities

04

Continuous Testing

Automated regression testing across all systems

Agentic AI Models: Gas Utility Use Cases

Agentic AI represents the next evolution in artificial intelligence—autonomous systems that can perceive their environment, make decisions, and take actions to achieve specific goals. For gas utilities, these intelligent agents operate continuously to optimize operations, enhance safety, and ensure regulatory compliance.

Autonomous Scheduling

AI agents coordinate field inspections, optimizing routes and technician assignments based on priority, location, and resource availability

Predictive Maintenance

Continuous analysis of pipeline conditions predicts maintenance needs before failures occur, reducing downtime and costs

Leak Detection Intelligence

Real-time sensor data analysis identifies potential leaks instantly, enabling rapid response to safety threats

Automated Reporting

AI agents compile and submit regulatory reports automatically, ensuring accuracy and timely compliance

Operational AI Drivers

AI is driving operational transformation across every aspect of gas utility management. Advanced forecasting models analyze historical usage patterns, weather data, and economic indicators to predict customer demand with unprecedented accuracy. This enables better supply planning and grid management.



Usage Forecasting

Predictive models anticipate customer demand patterns for optimal resource allocation



Energy Efficiency

Personalized tips help customers reduce consumption and lower bills



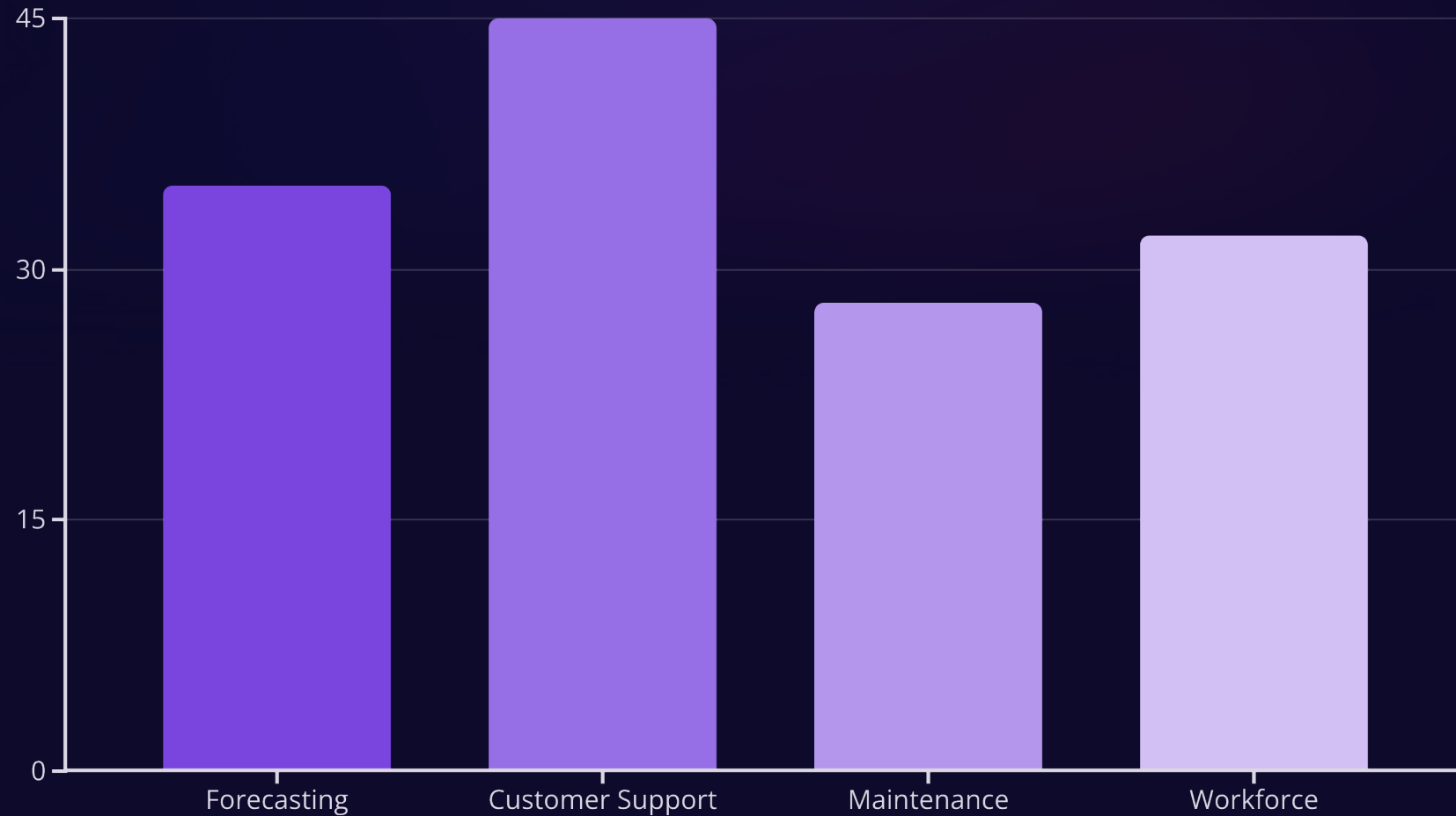
Workforce Optimization

AI-driven training and scheduling maximize team productivity



IoT Integration

Seamless connection with smart meters and devices creates a unified ecosystem



How PS2G Supports Customer AI Approaches

PS2G provides comprehensive support for gas utilities embarking on their AI transformation journey. Our expertise spans governance frameworks, strategic domain identification, and cutting-edge agentic AI development using industry-leading tools.

Governance Modeling

We establish robust AI governance frameworks that ensure responsible deployment, data privacy, and regulatory compliance across all AI initiatives

Domain Identification

Strategic analysis identifies high-value operational domains for AI application, moving beyond isolated use cases to systemic transformation

Agentic AI Development

Building sophisticated autonomous agents using LangGraph and LangChain frameworks for intelligent, self-directed operations

Our Approach

- Comprehensive governance frameworks tailored to utility regulations
- Strategic domain mapping for maximum operational impact
- Hands-on agentic AI development with proven frameworks
- Continuous support through implementation and scaling

Why Partner With Us

PS2G combines deep utility industry knowledge with cutting-edge AI expertise. We understand the unique challenges of gas utilities—from regulatory compliance to operational safety—and deliver AI solutions that address real business needs while ensuring responsible, ethical deployment.