Ensuring Energy Reliability in the Pacific Northwest: The Imperative of Gas-Electric Coordination Initiative

The Pacific Northwest stands at a critical juncture in its energy transition. As demand for electricity surges, driven by electrification, data center expansion, and high-tech manufacturing, the region's energy systems are facing a mounting strain. The current energy landscape and recent weather events underscore the urgent need for enhanced cooperation between natural gas and electric utilities to ensure reliability, affordability, and a successful transition to a clean energy economy.

The Challenge: Rising Demand and Constrained Capacity

The Pacific Northwest Utilities Conference Committee (PNUCC) projects electricity demand in the region could grow by over 30% in the next decade, equivalent to enough power for seven cities the size of Seattle. To meet this surge, utilities plan to add 29 GW of new nameplate capacity by 2035. At the same time, the Western Electricity Coordinating Council (WECC) anticipates 172 GW of new generation capacity across the Western Interconnection, more than double the rate of additions in the prior decade.

While this pace of development is unprecedented, it also exposes significant risks. Supply chain constraints, siting challenges, interconnection delays, and rising costs have already hampered deployment. According to the Western Electricity Coordinating Council (WECC)

According to the Western Electricity Coordinating Council (WECC), only 53% of new generation resources scheduled to come online in the Western Interconnection in 2023 were deployed. These shortfalls threaten regional resource adequacy and put the entire energy system under pressure.

Natural gas remains the second-largest source of electricity in the Northwest after hydropower. As renewables increase, gas-fired generation continues to provide critical reliability services, especially during peak demand and extreme weather events. However, existing pipeline capacity is already heavily utilized. Without additional delivery infrastructure, both natural gas pipelines and electric transmission systems lack the headroom to support increasing peak loads.

Lessons from Recent Events: The January 2024 Cold Snap

The multi-day cold snap in January 2024 exposed the region's vulnerabilities. Peak loads across many Balancing Authority Areas (BAAs) exceeded historical highs for an extended period. ***According to the Western Power Pool*** (WPP), the Pacific Northwest depended on nearly 5,000 MW of imported electricity from the Desert Southwest and Rockies to maintain system reliability.

Coordinated emergency operations between gas and electric providers and voluntary customer conservation measures were critical in averting widespread outages.

Yet this near-miss also highlighted how close the system is to exceeding its deliverability capacity. With no excess capacity in either the gas or electric delivery systems, prolonged extreme weather events combined with infrastructure curtailments or depleted gas storage inventories could trigger major disruptions.

The Case for Coordinated Planning

Historically, gas and electric systems have operated with siloed planning processes. This disconnect undermines the resilience of an increasingly interdependent energy system. Today, electricity generation depends heavily on natural gas availability, and gas system operators rely on electricity for compression, control, and delivery functions. Failure in one system quickly cascades into the other.

Pacific Northwest regional utilities and energy companies, both gas and electric, are beginning the process of increased regional coordination, emphasizing that enhanced coordination is not merely a best practice—it is a necessity. Regional energy leaders call for a shared understanding of resource adequacy, risk assessment, and infrastructure planning. This means aligning investments in clean energy with realistic timelines for developing supporting natural gas and electric infrastructure.

Key strategies include:

- **Joint Forecasting and Scenario Planning:** Developing shared models that account for interdependencies and stress-test system resilience under various demand and weather scenarios.
- **Coordinated Infrastructure Investments:** Building new pipeline, transmission, and storage capacity to provide the flexibility and redundancy needed for a decarbonizing grid.

- **Streamlined Siting and Permitting:** Working with policymakers to remove barriers that delay critical infrastructure projects.
- **Emergency Response Protocols:** Establishing integrated operational plans for extreme events to ensure rapid and coordinated actions.

Risks of Inaction: Reliability and Public Health

Energy system failures are more than technical issues—they are public health and economic threats. Blackouts during peak demand events can disrupt heating, healthcare services, and critical infrastructure, especially during extreme weather. They also impose substantial costs on consumers due to price spikes in energy markets and unplanned capacity acquisitions. These unnecessary expenditures make the clean energy transition more expensive for ratepayers and undermine public support.

Moreover, delays in deploying planned resources increase exposure to reliability risks. WECC warns that if significant portions of proposed generation capacity are delayed or cancelled, much of the Western Interconnection—including the Pacific Northwest—may not be resource adequate over the next decade.

Adding further pressure, the Woodfibre LNG export facility in British Columbia is expected to begin operations in 2027, requiring substantial natural gas capacity and exacerbating regional constraints until new infrastructure comes online.

The Path Forward: Urgency and Collaboration

The region's transition to a clean energy future must balance environmental goals with reliability and affordability. This requires a comprehensive strategy in which natural gas and electric systems work hand-in-hand. Policymakers, regulators, utilities, and customers must come together to:

- **Support Realistic Clean Energy Timelines:** Recognize that the pace of renewable deployment must align with the development of supporting infrastructure to avoid reliability gaps.
- **Invest in Resilience:** Enhance gas storage, expand pipeline and transmission capacity, and modernize both systems to handle increasing variability.
- **Create Regional Forums for Dialogue:** Foster ongoing discussions where gas and electric stakeholders share data, coordinate planning, and develop joint solutions.

The time for parallel but disconnected efforts has passed; only integrated, cooperative planning and action can secure the region's energy future.

Conclusion: A Critical Opportunity

The Pacific Northwest is dangerously close to significant energy supply disruptions. Recent events and forward-looking forecasts both make clear that the existing systems are ill-equipped to handle the dual pressures of rising demand and extreme weather without significant enhancements.

By embracing coordinated planning and investing in joint solutions, the region can not only avoid catastrophic failures but also lead the way in creating a clean, reliable, and resilient energy system. The stakes are high, and the window for action is narrow. It is imperative that gas and electric utilities, along with their partners, act now to build the foundation for the Pacific Northwest's energy future.