

Waste Incineration: Its Role in Circular Economy

Key Learnings

Solve For Timing, Not Just Volume

Many systems transitioning to variable or decentralized supply do not lack capacity. They lack synchronization between when output is produced and when it is needed. In Germany's power market, negative pricing hours grew from 300 in 2023 to over 450 in 2024, with forecasts exceeding 1,000. The resource is there, just not at the right moment. **The ability to deliver at the right time is becoming more valuable than the ability to deliver more. Any operation sitting on steady output needs to treat timing as a strategic variable, not a scheduling detail.**



Recognize When Regulation Turns Byproducts Into Strategic Assets

Heat and steam from thermal processes were historically low-priority outputs. Now that municipalities are required to develop heating transition plans and fossil gas is being phased out, these same outputs attract active demand. Proximity to a thermal source has shifted from a logistical footnote to a location advantage for industrial tenants. **Regulatory shifts can dramatically change the value of outputs a facility already produces. Monitoring policy pipelines is essential because value does not only come from changing what you do, but from changed conditions around what you already do.**

Build Commercial Infrastructure Before Physical Flexibility

Physical capacity to adjust output is worthless without the ability to forecast, price, and trade that flexibility. Before storage systems or demand-side agreements create value, an organization needs trading capability, market access, and predictive models. **Flexibility is not just a technical feature of an asset. It is a product that requires its own commercial infrastructure to capture value from.**

Offer Demand-Side Flexibility As A System Contribution, Not Just A Cost Measure

Energy consumers have historically treated supply as always available and adjusted nothing on their end. In a system with variable supply, that assumption breaks down. If consumers do not offer flexibility in when they consume, the system requires massive redundant infrastructure to cover every peak, and costs rise for everyone. Sebastian puts it plainly: whoever has flexibility will help the entire system take a large step into the transition. **Reducing consumption and flexibilizing when it happens are not just cost optimisation. They are contributions to system efficiency that benefit every participant.**

Listen to the full episode here:

<https://circularity.fm/episode/waste-incineration-its-role-in-circular-economy/>