GMAB - SPIG Group

**Sønderborg Kraftvarme A/S**

Urgent Emission Reduction & Efficiency Optimization Opportunity

**🚨 CRITICAL EMISSION CRISIS DETECTED**

* • SOx emissions TRIPLED: 1,429 kg (2020) → 4,224 kg (2021) = +195.6%
* • NOx emissions increased 12.1%: 89,380 kg (2020) → 100,203 kg (2021)

*Source: European Environment Agency (EEA) Industrial Emissions Database*

**Facility Overview**

|  |  |
| --- | --- |
| **Location:** | Vestermark 16, 6400 Sønderborg, Denmark |
| **Capacity:** | 52 MW | ~70,000 tonnes/year waste | CHP district heating |
| **Ownership:** | Consumer cooperative - 16,500 members (Sønderborg Fjernvarme Amba) |

**GMAB Integrated Solution**

* Emission Control Upgrade: FGD desulfurization + SCR/SNCR NOx reduction (80% SOx cut, 30% NOx cut)
* ORC Waste Heat Recovery: Add 15,000-25,000 MWh/year electricity output (+5-8% efficiency)
* Predictive Maintenance: IoT/AI monitoring to prevent future equipment degradation

**Financial Business Case**

|  |  |  |  |
| --- | --- | --- | --- |
| **Investment** | **Annual Benefit** | **Payback** | **IRR (20-yr)** |
| **€8-12M** | **€1.95M - €2.35M** | **4-6 years** | **15-18%** |

**Why GMAB?**

✓ 50+ WtE installations worldwide | Proven ORC & emission control expertise

✓ Scandinavian market experience (Sweden, Finland) - Cultural fit & regulatory knowledge

✓ Turnkey EPC capability with performance guarantees

✓ EU grant funding support (Innovation Fund, Horizon Europe, Danish Energy Agency)

**Let's Solve This Together - Complimentary Assessment Available**

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