



Additional Information on Energy Efficiency Analysis and Improvement Services

Why is Energy Efficiency Analysis Important?

In today's environment of increasing electricity consumption and aging equipment, energy efficiency has become a critical concern for industrial enterprises. Energy losses at industrial facilities significantly exceed those in the residential sector and can reach substantial levels.

Main Causes of Energy Losses

Based on our experience, the key areas of energy loss are:

- **Transformer substations**
 - ✓ Wear of active steel and transformer windings
 - ✓ Vibrations and mechanical damage to structures
 - ✓ Short circuits in the active steel core
 - ✓ Load mismatches with design values
- **Distribution networks**
 - ✓ Inadequate cable cross-sections for loads
 - ✓ Aging insulation
 - ✓ Uneven phase loading
 - ✓ Corona discharge losses in high-voltage lines
- **Electric motors and mechanical equipment**
 - ✓ Shaft misalignment issues
 - ✓ Bearing wear
 - ✓ Winding defects
 - ✓ Operation of motors in non-design modes
- **Organizational factors**
 - ✓ Lack of energy monitoring systems
 - ✓ Untimely maintenance
 - ✓ Inefficient use of energy-intensive equipment.



Energy Efficiency Analysis Methods

We apply a comprehensive approach covering all main power supply nodes:

- 1. Transformer Equipment Diagnostics**
 - Assessment of active steel condition
 - Load mode analysis
- 2. Power Network Verification**
 - Cable cross-section adequacy check
 - Overload detection
- 3. Motor Performance Analysis**
 - Vibration parameter measurement
 - Alignment quality assessment
- 4. Thermal Imaging Control**
 - Detection of overheating points
 - Loss evaluation at connections

Advantages of Our Services

- **Comprehensive Approach**
Consideration of all power system elements
- **Modern Methods**
Use of advanced diagnostic technologies
- **Expert Analysis**
Extensive experience with industrial equipment
- **Custom Solutions**
Development of efficiency improvement programs



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What Benefits Do You Get?

- 1. Cost Reduction**
Up to 15% savings on electricity costs
- 2. Increased Reliability**
Reduced equipment failures
- 3. Operation Optimization**
Improved production efficiency
- 4. Compliance**
Meeting energy efficiency requirements

Summary

Our company offers professional energy efficiency analysis and improvement for industrial enterprises using advanced methods and technologies. We help our clients ensure reliable, safe, and cost-effective operation of their power systems.

Contact us to order diagnostics and receive a detailed report on the condition of your equipment and recommendations on its efficient maintenance and repair.

Contact Information

☎ Phone: +51 961 355 555

✉ Email: info@electroguardia.com

🌐 Website: <https://electroguardia.com>