EIMV
Elektroinštitut Milan Vidmar (Milan Vidmar Electric Power Research Institute)

1. Company Overview

- Elektroinštitut Milan Vidmar (EIMV)
- Hajdrihova 2, SI-1000 Ljubljana, Slovenia
- Established: 1948
- Independent research institution
- Founder: Slovenian Academy of Sciences and Arts
- 85+ experts
- ISO 9001, ISO 14001, ISO/IEC 17020, ISO/IEC 17025 accredited

EIMV is Slovenia's leading independent engineering and scientific research organisation in the field of electric power systems. For more than 75 years, the institute has provided independent studies, analyses, testing and consulting services for electricity generation, transmission and distribution.

EIMV supports utilities, regulators and public authorities with advanced modelling, system analyses and expert services aimed at strengthening reliability, resilience and sustainable energy transition.

Website: https://www.eimv.si/en/

2. Core Capabilities & Technologies

EIMV provides comprehensive expertise across the full electric power system value chain.

Key Technological Strengths:

- Power system modelling and simulation (load flow, short-circuit, contingency and adequacy analysis)
- Stability and security assessments (steady-state and dynamic)
- Renewable energy and battery storage integration studies
- Grid-code compliance and connection studies
- Resilience assessment for critical energy infrastructure

- Restoration and black-start planning
- High-voltage equipment testing and diagnostics
- Smart grid and ICT integration solutions
- Lightning localisation and protection systems (SCALAR)
- Environmental impact assessment and monitoring

EIMV combines research excellence with practical engineering implementation.

3. Product Portfolio Relevant for the Philippines

EIMV offers independent expert services and advanced digital solutions supporting grid modernisation and energy transition.

Power System Studies & Grid Modernisation

- Transmission and distribution planning studies
- Network hosting capacity assessments
- Voltage and frequency stability studies
- Dynamic security assessment
- Integration of solar PV, wind and BESS systems
- Grid reinforcement versus flexibility techno-economic analysis
- Contingency and emergency scenario simulations

Smart Grid & Digital Solutions

- Smart grid architecture development
- ICT and OT integration
- Data interoperability modelling (CIM)
- Advanced metering and flexibility services
- AI-based forecasting and energy flow estimation
- Digital twins of generation units and network models

Resilience & Critical Infrastructure Support

- Emergency operating procedures
- Restoration planning and training exercises
- Risk assessment for extreme events
- Lightning localisation services and outage correlation

- Energy security assessments for strategic infrastructure

4. Target Sectors in the Philippines

- Department of Energy
- National Grid Corporation of the Philippines
- Distribution utilities
- Renewable energy developers
- Transmission and system operators
- Energy regulators and public authorities
- Industrial energy consumers
- Critical infrastructure operators

5. Use Cases Relevant to the Philippines

Energy Transition & Renewable Integration

- Solar and hybrid plant grid integration studies
- Hosting capacity calculations
- Stability and frequency performance improvement
- Storage optimisation and flexibility assessment

Grid Resilience & Disaster Preparedness

- System restoration modelling after typhoons
- Contingency and emergency planning
- Protection system performance assessment
- Critical infrastructure vulnerability studies

Smart Grid Development

- Digital network models
- Advanced metering and data analytics
- Flexibility services implementation
- Regulatory and tariff modelling support

6. Competitive Advantages

- 75+ years of independent engineering expertise
- Accredited laboratories and certified quality systems
- Research-based yet implementation-oriented approach
- Experience in European and international energy projects
- Independent, technology-neutral advisory position
- Strong expertise in resilience and security of supply

7. Reference Projects

- European smart grid research programmes
- Transmission and distribution digital twin development
- Renewable integration and hosting capacity studies
- Flexibility market design and implementation support
- Lightning localisation and outage analytics systems
- Large-scale transmission network simulation models

8. Deployment & Cooperation Models

EIMV seeks cooperation in the Philippines through:

- Joint technical studies with utilities
- Support in grid modernisation programmes
- Renewable integration and storage optimisation projects
- Capacity-building and training initiatives
- Advisory support for regulatory development
- Participation in international funding and development programmes

Cooperation focus:

- Reliable and resilient power systems
- Renewable integration and decarbonisation
- Strengthened energy security
- Knowledge transfer and long-term partnerships

9. Primary Contact

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