



## Sakhalin Energy Investment Company Ltd.

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23/12/2019

ATTN: O.N. Ekaterinina,  
Deputy Director General

Re: Reference on Instruments

Dear Olga Nikolaevna!

Sakhalin Energy Investment Company Ltd. (hereinafter - the Company) informs that the MIKO-9A instrument operated by our organization, manufactured and delivered by your enterprise, meets the requirements for it. Special equipment and functionality are provided in accordance with the order.

Although the operating experience of the device is relatively small (since June 2019), at the moment it seems possible to note a number of positive comments on the effectiveness of its use:

- Compactness and lightness;
- A wide range of test leads and probes;
- The presence of power from the network and from the built-in battery.

For example, in the field, there is no need to organize the device's power supply from the network, and when the battery is discharged, it is possible to connect the mains power and continue the measurement without waiting for the battery to charge.

- Fast saturation of windings when measuring objects with high inductance (powerful power transformers, synchronous / asynchronous machines);
- The large capacity of the built-in battery allows you to perform a large number of measurements without recharging it;
- There are manual and automatic measurement modes, which allows you to choose the necessary functional settings.

For example, it is very convenient to measure the transition resistance of contacts (including the ground loop) in automatic mode using needle probes with spring-loaded contacts, since the device starts to measure automatically after connecting the probes to the measurement object, which makes it possible to quickly perform a large number of routine and similar measurements and does not require the involvement of two people.

- In the kit for the device there is a calibration shunt and an element of zero resistance, which allows you to quickly monitor the performance of the instrument in the field;
- In the measurement options there are options for the demagnetization of the transformer and in-place on-load tap-changer diagnostics using the DRM method;
- The demagnetization option of the transformer has already proven its effectiveness - the inrush of the magnetization current has been reduced to a safe value;
- The device interface is intuitive and understandable;
- Instructions for use of the device are itemized and detailed (there is no need to contact technical support on any issues related to its setup and use).

The advantages of this instrument, as indicated above, allow you to maximize the efficiency and quality of measurements in the field with minimal human resources.

Sakhalin Energy Investment Company Ltd. hopes for further fruitful cooperation.