



Kinectrics' T&D Newsletter – Spring 2020



Innovation Hub: PPE Production and Testing

Kinectrics is working to support the needs of frontline workers in the fight against COVID-19, while maintaining critical support to the electricity industry.

Kinectrics has mobilized staff to support the **production of PPE** including face masks for provision to frontline medical facilities, and more complex resin-based parts for medical devices or repair of equipment where sourcing parts is a challenge. Our experienced designers, machinists, and reverse engineering staff are committed to support the needs of the Province of Ontario and Canada throughout the COVID-19 pandemic.

We are also **adapting our leading test capabilities**, normally utilized for testing of HEPA filters and respiratory PPE for the nuclear industry, towards medical needs. This “Made in Ontario” model will ensure a long-term stable supply of testing to the Province, and to the rest of Canada. [Read more...](#)

Kinectrics' Virtual World – T and D in 360°

Kinectrics' Transmission & Distribution Laboratories are a shining example of our exceptional facilities – specialized for the power industry and conforming to the highest quality standards. From third-party type testing and condition assessment, through to forensic analysis, collectively our labs have full life-cycle testing capabilities, all on one campus.

Unable to come for a visit in person? No problem - [explore our labs online through our 360° videos!](#)



Featured Insight: High Voltage Transmission Cable Commissioning

Are you confident your transmission cable system will perform as designed for its lifetime?



Kinectrics completes commissioning tests on underground & subsea high voltage (HV) transmission class cable systems, identifying life-limiting defects before cables go into operation or after cable repair. Without commissioning, the risks are catastrophic – premature failure under load can result in damage to the cable itself, damage to adjacent cables, outages and subsequent grid complications. The costs

associated with premature cable failures include not only repair or replacement, but also lost generation revenue.

As an independent service provider testing in compliance with industry standards (IEC 60840, IEC 62067, AEIC CS9, ICEA S-108-720 and HD 632 SCT 36), Kinectrics' team of experts has successfully commissioned 6,500 km of both onshore and offshore HV cable over the last several decades. Kinectrics owns a fleet of Resonant Test Systems (RTS) globally, allowing for longer and higher voltage cable testing, and rapid deployment of test units in both North America and Europe.

Resonant testing, from 20 – 300Hz for land cables and 10 – 300Hz for offshore cables, is the only effective method to commission high voltage cables; and when combined with Kinectrics' distributed Partial Discharge measurement system it also allows for detection of gross and latent defects on all accessories, even on very long cables (50 km +) – providing a turnkey solution to our customers.

Let our experts ensure your cable system is fit for service with Kinectrics' high voltage underground & subsea transmission cable commissioning.

Watch our [video](#) to learn more.

Project Highlight: Kinectrics successfully completes first non-energized circuit trial with ANAGEN™

In February this year, [ANAGEN™](#) very successfully completed its first non-energized circuit trial for low-medium viscosity hollow-core fluid filled cables in the UK. This follows a detailed set of cable test rig trials - all of which were successful in showing primary leak site healing, backfill related barrier formation, and healing reinforcement. To this end, further circuit trials on live circuits are now being planned in advance of gaining adoption in the UK.



ANAGEN™ is a new dielectric fluid for fluid filled cables that has been developed to mitigate fluid leakage from damaged cables, reducing both the increasing operational and environmental costs associated with these ageing network assets.

An opportunity now exists to extend the trialing to both European and North American utilities interested in trialing ANAGEN™. We anticipate that such trials will lead to an interest in adopting ANAGEN™ for existing fluid filled cables that are currently leaking, as a preventative for those not leaking, and/or having intermittent leak behaviour.

ANAGEN™ was developed by Kinectrics' Gnosys subsidiary, who hold the Intellectual Property rights for this first and one-of-a-kind advanced formulation. [Read more](#) on Kinectrics' acquisition of Gnosys.