

Letter of Reference

Dr Chavdar Ivanov, born on 2 June 1976, was employed at our company as an engineer in the Asset Management Germany department from 1 August 2016 to 29 February 2020.

TenneT is one of the leading transmission system operators in Europe. With approximately 23,000 km of high-voltage and extra-high voltage lines in the Netherlands and Germany, we provide 41 million end users with reliable and safe power supply around the clock. With around 4,000 employees, TenneT is developing the northwest European energy market as a responsible innovator and is increasingly integrating renewable energy as part of a sustainable energy supply.

In his role as Power System Analysis Engineer, he was responsible for creating models for dynamic stability analysis and was heavily involved in the implementation of both Steady-state and dynamic analysis in a new software tool. This requires extensive knowledge and usage of DigSILENT PowerFactory and Python programming necessary to develop and maintain the set of scripts used for the different analysis.

Dr Ivanov's area of responsibility essentially comprised the following additional activities:

- Usage of FGH Integral application to ensure data transfer to PowerFactory
- Work on various TenneT projects preparing technical specifications for new equipment, e.g. the project of installation of TCSC in Stadorf substation and involvement in the German network development plan prepared by the four TSOs in Germany
- Various topics related to the digitalisation of the German power system
- Contribution to international work as a Convenor of ENTSO-E CGMES group and a member of ENTSO-E CIM EG advising on Common Grid Model and Common Grid Model Exchange Standard (CGMES) topics

Dr Ivanov has outstanding and extensive technical expertise working with the GCMES format. He also has long-standing experience in developing and handling very large transmission system models and he put this knowledge to very good use at our company. Particularly noteworthy is he modelling of complex power systems, especially with the following formats and tools:

- CGMES
- PowerFactory
- FGH Integral 7

He constantly expanded and updated his comprehensive expertise through frequent participation in training events for the benefit of our company, e.g. PowerFactory trainings in special topics with high relevance for a TSO.

Thanks to his quick thinking, he was always able to immediately grasp even difficult situations and find very effective solutions, e.g. regularly engaged in setting up structures for the proper integration of various work results / innovations.

Dr Ivanov continuously demonstrated a high level of initiative and always identified completely with his duties and with our company while also impressing his colleagues with his enthusiasm for the work.

Even in situations with high workload, he always proved tenacious and willing to take on additional responsibility. He is always willing to help colleagues inside or outside his Team and support with his experience.

He always performed his work entirely independently and with great care, foresight and thorough planning. He is able to work both on his own on detailed technical questions and within teams on bigger projects or technical deliverables. He remained calm at all times and completed his tasks with due consideration and high precision with full focus on reaching the targets. From both a qualitative and quantitative perspective, he consistently performed at a very high level. Dr Ivanov was an exceptionally reliable employee.

He found outstanding solutions to all problems he encountered, without exception, which he always applied with a high degree of accuracy, precision, structure and well documented results. Particularly noteworthy is:

- Specifications of the first Thyristor Controlled Series Capacitor in Germany
- Development of a toolchain to create a dynamic model based on loadflow data
- Setting up a common power system database for PowerFactory and operation on a server farm

We have always been entirely satisfied with the performance of Dr Ivanov in every respect.

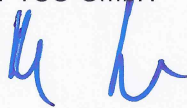
He was highly esteemed by all for his consistently polite, friendly and even-tempered attitude. He was always helpful and accommodating, and also set aside personal interests when necessary. His behaviour toward superiors, colleagues and customers was in all cases exemplary and loyal.

Dr Ivanov is leaving our company effective 29 February 2020 of his own volition. Dr. Ivanov enriched our team in a great way both technically and personally. He contributed to our work results with his technical creativity and experience in an excellent way. We greatly regret this move as we are losing an excellent employee. We are grateful for his consistently excellent service and wish him great success in all his future endeavours, both professional and private.

Bayreuth, 29 February 2020

TenneT TSO GmbH

p.p.



Dr Bernd Klöckl
Grid Planning

p.p.



Bernd Strobel
Human Resources Germany