INDEPENDENT INSULATION GROUP

CURRICULUM VITAE

# TOMAS HAMMARLUND

Tomas received his M.Sc. in Renewable Electricity Production, Uppsala University, in 2019. His master's thesis was conducted at Falu Energi & Vatten and focused on the impact of home charging of electric vehicles on Falun's low-voltage distribution grid. He used scripts and charging profiles in Matlab for his research. After graduating, Tomas began his career at AFRY in the Advanced Automation segment as an automation engineer, serving clients in the steel and paper industries, including companies like SSAB, Outokumpu, and Arctic Paper. In 2023, Tomas transitioned to working for I2G in the field of power system analysis.

## MAIN FIELDS OF COMPETENCE

- Grid code compliance studies
- Power system analysis – WECC simulations and modelling

## WORK EXPERIENCE

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|---|---|
| 2023- | **Independent Insulation Group Sweden AB**, Ludvika, Sweden<br>*Engineer* |
| 2019-2023 | **AFRY AB,** Borlänge, Sweden<br>*Automation engineer.* |

## EDUCATIONAL DEGREES

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|---|---|
| 2019 | **Master's Programme in Renewable Electricity Production**<br>Uppsala University, Uppsala, Sweden<br>Thesis: The impact of home charging of electrical vehicles at Falun's low-voltage distribution grid<br>August 2014 – June 2019 |

## LANGUAGES

Swedish (native), English (professional level)

**LIST OF PROJECTS**

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|---|---|
| 2023 – ongoing | ***Wind farm connections studies***<br>*Studies regarding grid code (EU 2016/631 - RfG) compliance, reactive power capability and cable dimensioning based on loading and short-circuit currents.* |
| 2023 – ongoing | ***PV park connections studies***<br>*Studies regarding grid code (EU 2016/631 - RfG) compliance, reactive power capability and cable dimensioning based on loading and short-circuit currents.* |
| 2023 – ongoing | ***Grid code compliance simulations – RfG and EIFS 2018:2 for wind farms and PV parks***<br>*Grid code compliance simulations as per RfG and EIFS 2018:2 for wind farms and PV parks. The studies were performed in PowerFactory.* |
| 2023 – ongoing | ***WECC model compliance simulations - RfG and EIFS 2018:2 for wind farms and PV parks***<br>*WECC model compliance simulations as per RfG and EIFS 2018:2 for wind farms and PV parks.* |
| 2019 – 2023 | ***Various assignments within the steel and paper industries as an electrical designer/engineer*** |
| 2019 | ***Master Thesis***<br>Thesis title: "The impact of home charging of electrical vehicles at Falun's low-voltage distribution grid"<br>The thesis focused on the impact of electric vehicle charging at various penetration levels on the low-voltage grid in Falun. Simulation scripts for the power grid, along with a model for charging profiles, were utilized in Matlab for the study. |

**List of publications**

**T. Hammarlund**
*The impact of home charging of electrical vehicles at Falun's low-voltage distribution grid*
Master's Thesis, Uppsala University, Uppsala, Sweden, 2019