Trading Platform for Renewable Energy Source Products & the use of Artificial Intelligence in RES Forecasting

Regulatory School
Energy Community
14. November

Silje Landmark
Key Account Manager
Agenda

• Who is Montel and ISN?

• Green Power Hub

• Montel AI forecast models
Montel

An information provider for the European Energy Market

News, data and analysis
Montel

**Montel:** Founded in 1989.

**Location:** Oslo (HQ), Stockholm, London, Berlin, Frankfurt, Munich, Paris, Madrid, Szczecin, Ljubljana and Istanbul

**Turnover:** Approx. EUR 10 million in 2018. Steady growth and more than 80% of turnover come from internet based solutions.

**Products:** Montel EQ, API-solutions, Newsletters, Trading Advisory Service, Courses and Conferences, Advertisments and IT-consultancy projects.

**Customers:** Approx. 4,000 users from more than 800 companies around in Europe.

**Companies in the group:** Montel GmbH, Montel News Iberia SL, Montel Tradenode AB, Software Scenario, Energy Quantified (EQ), Price IT, MontelEnergetika, MontelForeks, Datafabricator
Montel AI

- Started late 2016
- Machine Learning
Montel AI products

• Spot price prognosis
• Run of the river prognosis
• In-flow prognosis
• Wind Power prognosis
What is AI?

Where AI is today

What “people” think AI is
The basic idea
Why AI?

• Great when model output errors is acceptable

• Great when errors in model input
Our Model

- Adapts to new trends
- Improves with data
- Improves with more compute power
- Improves alongside advancements in the field of machine learning
Model pipeline

- Integrate customer data: WEB API, SFTP
- Select preoptimized model type: Wind, Solar, Hydro, other
- Feature selection: Automated
- Model optimization: Algorithm based
- Deployment: Cloud, Montel GPU cluster
- Operations: Notifications, Alarms
- Display data: Web, API, FTP, Email, Other
The results

• Automation

• More accurate registration in the day-ahead market

• Less correction to be made in the balancing market
Montel AI, model factory

Local custom machine learning models on demand
Adjusting satellites, please wait...
Joint venture project between ISN AS, Montel AS and ISN Solutions AS.

Founder of Green Power Hub (GPH):
ISN – Interest Sharing Network

Launched 22. August
Guarantees of Origin (GOs)

*EU Renewable Energy Directive (2009/28/EC):* Guarantees of Origin prove to the final customer that a given quantity of energy was produced from renewable energy sources.


Common European certificate system

Market-based instruments to increase awareness and use of renewable energy sources.

A heterogenous product
Our vision is to develop a world-wide trading network for renewable energy gathering all market players in one place.
Challenges in trading Guarantees of Origin

- Low price transparency
- Limited reference prices and volumes in the market
- Finding trading partners
Green deals made easy.
The Green Power Hub is a complete bilateral on-screen trading network for GOs and Elcerts. We offer full transparency on bid-offer spreads and deals done.

Secure subscription-based trading, no per-transaction costs and portfolio tools save you both time and money.

We welcome you to try our service for free.

Meet.  
Green Power Hub enables you to freely invite and accept invitations from counterparties to trade GOs and Elcerts of any size, origin, technology or volume.

Deal.  
Once registered, you can start placing your buying or selling interests on a fully transparent trading platform – and negotiate deals with your counterparties.

Done.  
When buyer and seller agree on a deal, Green Power Hub automatically issues a contract proposal which counterparties may use for settlement.
The way forward

Expand in markets
- Power
- PPAs

Expand in services
- Portfolio & Deal Management
  - Include trades from outside
  - Portfolio Management

- Enable more ways of trading
  - Auctioning
  - Tendering
  - Clearing
Summary

• Two ways of supporting renewable energy

• Different approaches

• Both solving market challenges

• Similar way of working
  We ask the customers, *What can we do for you?*
What can we do for you?

Thank you for your attention!