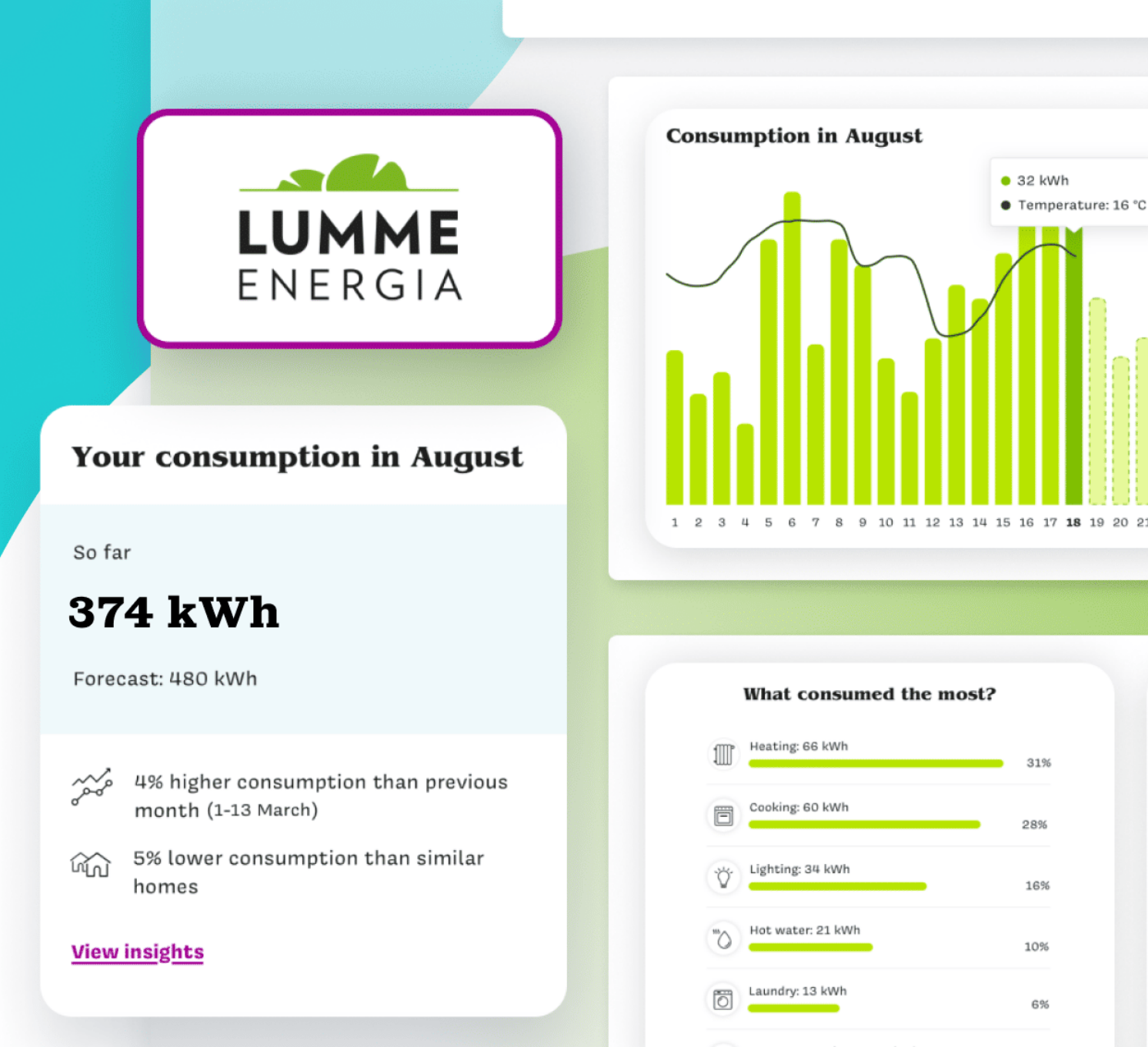
Lumme Energia
Consumers empowered with AI energy tools

a case study


LUMME ENERGIA
Your consumption in August
So far
374 kWh
Forecast: 480 kWh
4% higher consumption than previous month (1-13 March)
5% lower consumption than similar homes
View insights
Consumption in August
32 kWh
Temperature: 16 °C
What consumed the most?
Heating: 66 kWh 31%
Cooking: 60 kWh 28%
Lighting: 34 kWh 16%
Hot water: 21 kWh 10%
Laundry: 13 kWh 6%
Home entertainment: 5 kWh 3%

Introduction:

Lumme Energia sought a more efficient way to provide their energy monitoring solution to customers. Partnering with Eliq, they explored using web components to create a pre-built user interface in Lumme's brand colors. The trial phase yielded impressive results, surpassing expectations. Originally planning to build their own solution using Eliq's API, Lumme found that adopting web components was a game-changer. They successfully launched a web interface that supports customers throughout their home energy transition. By embracing web components in addition to their existing web portal and their plans with the Eliq API, Lumme saved valuable time, up to a year, compared to starting from scratch. This approach facilitated faster time-to-market and accelerated customer onboarding, showcasing the power of innovative solutions to achieve their goals.

>14min
Customer engagement per month

4.7
Average customer sessions per month

The Challenge

Lumme Energia faced several challenges that required attention:
Firstly, they sought to enhance energy understanding for their customers by providing insights into their past energy usage, enabling informed decision-making.
Secondly, Lumme aimed to address the issue of energy price volatility, particularly during Finland's harsh winter months, by offering accurate price predictions to help customers plan and manage their energy costs effectively.
Lastly, customer centricity was and is a priority for Lumme. They aimed to tailor their energy solutions to meet individual customer needs, ensuring personalized experiences and relevant services to enhance customer satisfaction and engagement.

About Lumme Energia

- Lumme Energia is a key player in the energy sector, involved in various aspects ranging from energy sales and services to the innovation of new energy services.
- With over 310,000 contracts, Lumme Energia has established a strong reputation in the industry.
- The company boasts a team of 40 experts dedicated to responsible energy practices and sustainable solutions.
- Lumme Energia's influence extends nationwide in Finland.
- To cater to their customers' needs, Lumme Energia offers a user-friendly web app, developed on various platforms, including the Eliq platform, providing seamless energy management capabilities to its users.

> *'We want to offer our customers a user-friendly service to help them better understand what uses the most energy in their home and what are the cheapest times to use electricity,' explains*
>
> Aki Martikainen, Lumme Energia's digital service development manager.

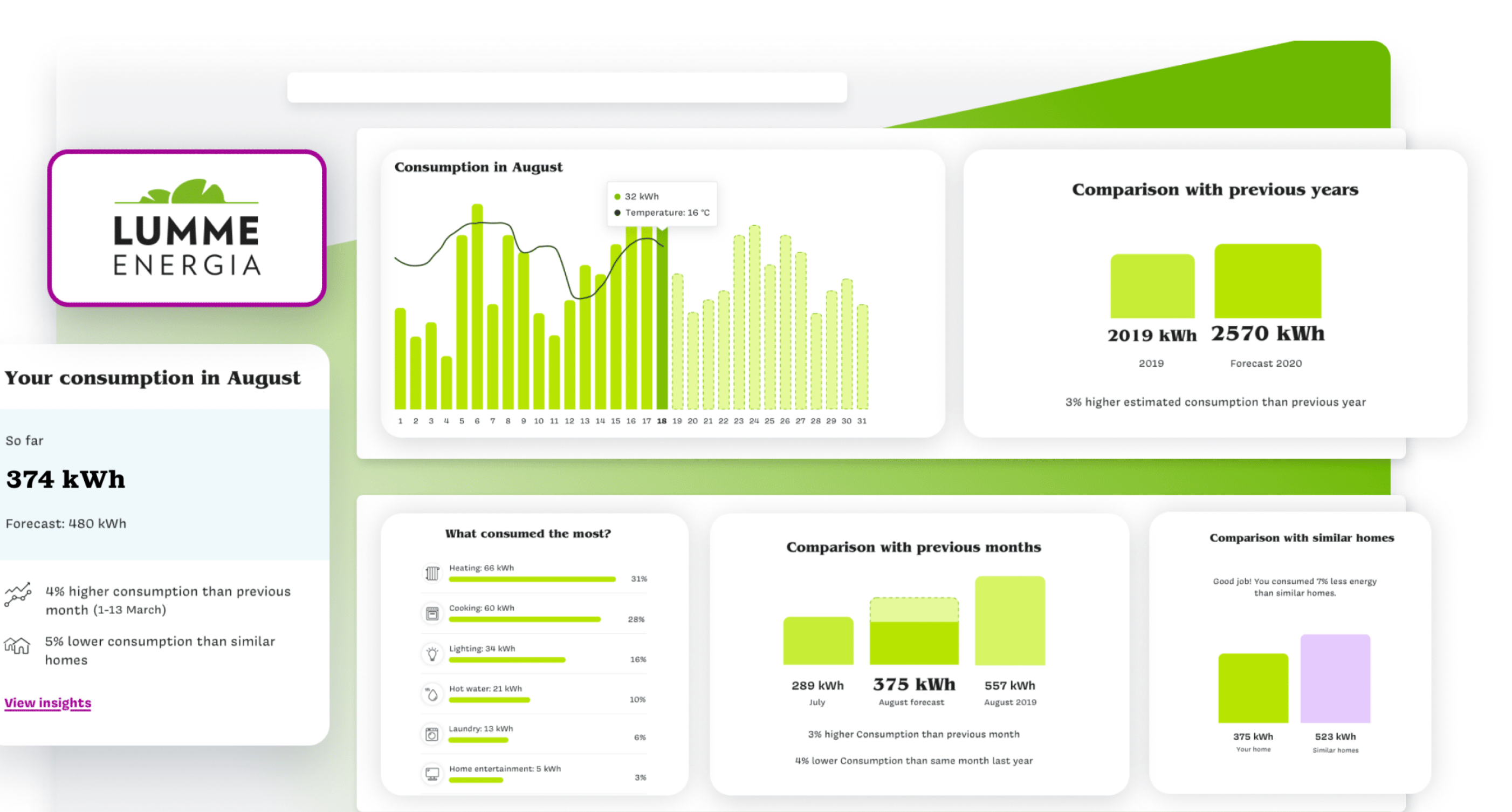
Lumme Energia aimed to address three key challenges:

- ✓ Challenge 1: **Enhanced energy understanding:** Providing insights about customers' past energy usage to help them make informed decisions going forward.
- ✓ Challenge 2: **Energy cost forecasts:** Offering price predictions to enable customers to plan for the volatile energy market, especially during the harsh winter months in Finland.
- ✓ Challenge 3: **Customer centricity:** Tailored energy solutions to meet individual customer needs, ensuring relevant services to enhance customer satisfaction and engagement.

The Solution:

In collaboration with Eliq, Lumme Energia developed a new, smart electricity use monitoring feature as part of their OmaLumme (MyLumme) service. Eliq's expertise in energy insights and consumer solutions was combined with the knowledge of the Finnish energy market from Lumme - creating a customer centric solution. The monitoring feature provided customers with a breakdown of energy use categories, enabling them to identify ways to reduce energy consumption.
When initiating the collaboration, Lumme Energia already had a web portal to provide their customers with a simple consumption graph. By combining the Eliq product with an existing solution, Lumme Energia aimed to provide their customers with more energy insights.

Lumme Energia partnered with Eliq to deploy AI analytics tools that analyze energy consumption data and provide valuable insights to customers. The collaboration involved the following steps:


LUMME ENERGIA
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5% lower consumption than similar homes
View insights
Consumption in August
What consumed the most?
Comparison with previous years
2019 kWh
2019
2570 kWh
Forecast 2020
3% higher estimated consumption than previous year
Comparison with previous months
289 kWh
July
375 kWh
August forecast
557 kWh
August 2019
3% higher Consumption than previous month
4% lower Consumption than same month last year
Comparison with similar homes
375 kWh
523 kWh

Project milestones

Embarking on a Partnership: Lumme Energia and Eliq kicked off the collaboration in December 2021, joining forces to harness the potential of Eliq's AI tools for energy usage analysis to support Lumme customers on their home energy transition.

Launching the Proof of Value: In early 2022, a proof of value project took place, with 7,500 customers participating and data collected from around 9,000 energy meter points. This venture unfolded against the backdrop of rising energy prices, stirred by bustling economic activity and geopolitical factors.

Crafting a Web Portal Experience: Inspired by the promising results of the pilot phase, Lumme Energia and Eliq collaborated to improve the existing Lumme web portal, easily accessible through the Lumme website.

Integration and Expansion: While the web portal currently serves as a interim solution, Lumme and Eliq are working to seamlessly integrate the analysis into Lumme's own user interface. This means that an even more comprehensive and delightful solution is in the works, expected to make its entrance in 2023.

> *'Lumme Energia was working on a mobile app and consumption data solution, for which they sought assistance with data analytics. In early 2022, we began to work together to develop a service that would help Lumme Energia's customers make better choices in their day-to-day lives,' explains*
>
> Wictor Hidefjäll, Eliq's Client Success Manager.

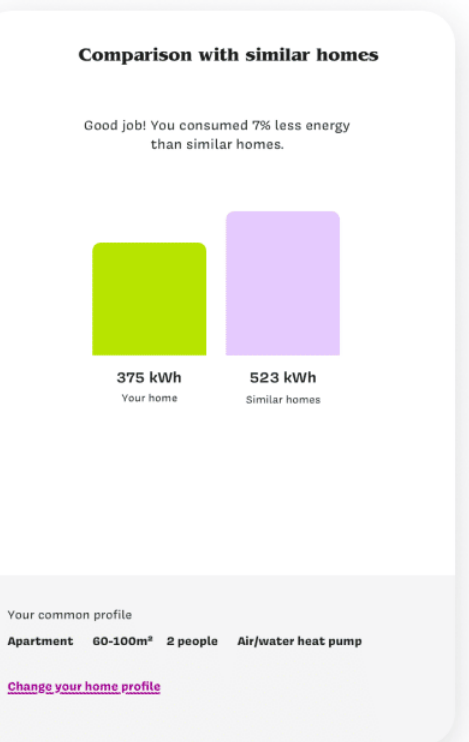
The Results

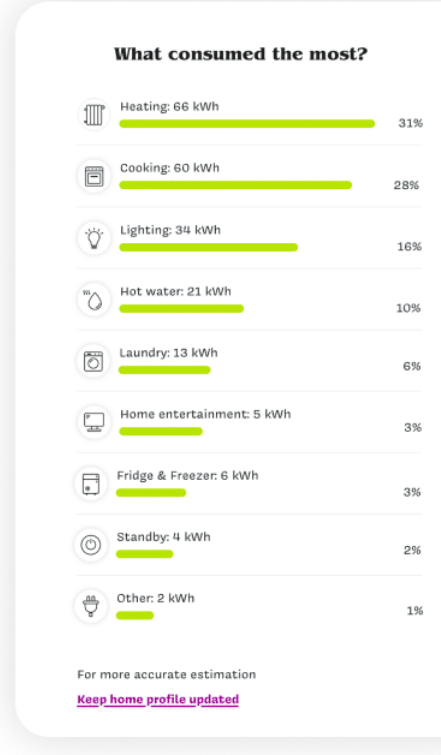
Lumme Energia has successfully addressed the challenges of providing energy insights, price predictions, and strengthening customer relationships. The AI-powered energy monitoring solution proved effective in helping customers reduce energy consumption, make informed decisions, and plan for the volatile energy market. Lumme Energia's proactive approach and collaboration with Eliq have positioned them as a leader in providing AI-driven analysis to empower customers and gain a competitive edge in the Finnish energy market.

The new electricity use monitoring service yielded several positive outcomes. The challenges presented at the beginning of the project were based on Enhanced understanding of energy usage, improved cost anticipation and a desire to improve the communication with customers.

Challenge 1: Enhanced energy understanding

Users can view their past energy usage in different categories, gaining insights into where the most electricity was consumed in their homes. They are also able to compare their consumption to other households, gaining valuable benchmarks to assess their energy usage.
Consumption reports enabled customers to see how their actions influenced energy use, empowering them to make informed choices and reduce electricity consumption.
Studies show that households with access to data on their energy consumption, are able to reduce their energy consumption by 5-7%.[1]


Comparison with similar homes
Good job! You consumed 7% less energy than similar homes.
375 kWh
Your home
523 kWh
Similar homes
Your common profile
Apartment
60-100m²
2 people
Air/water heat pump
Change your home profile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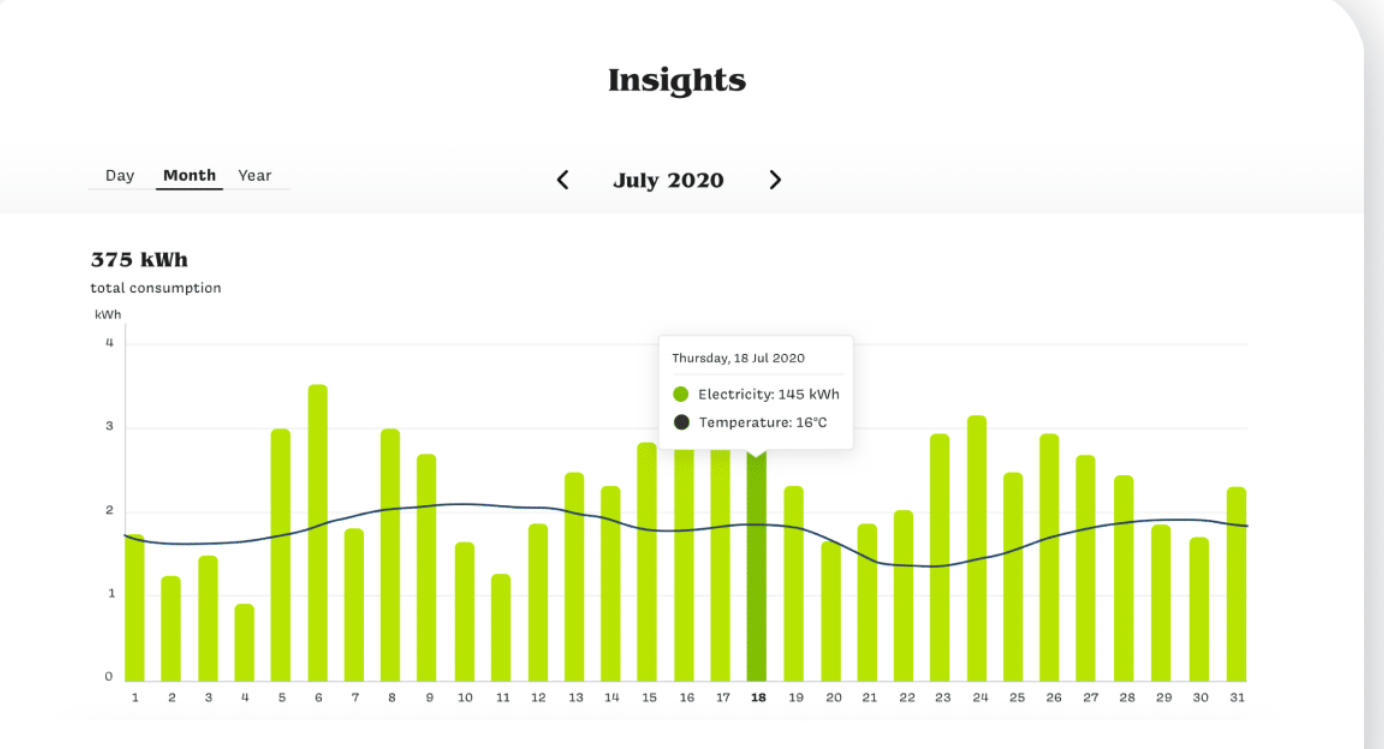
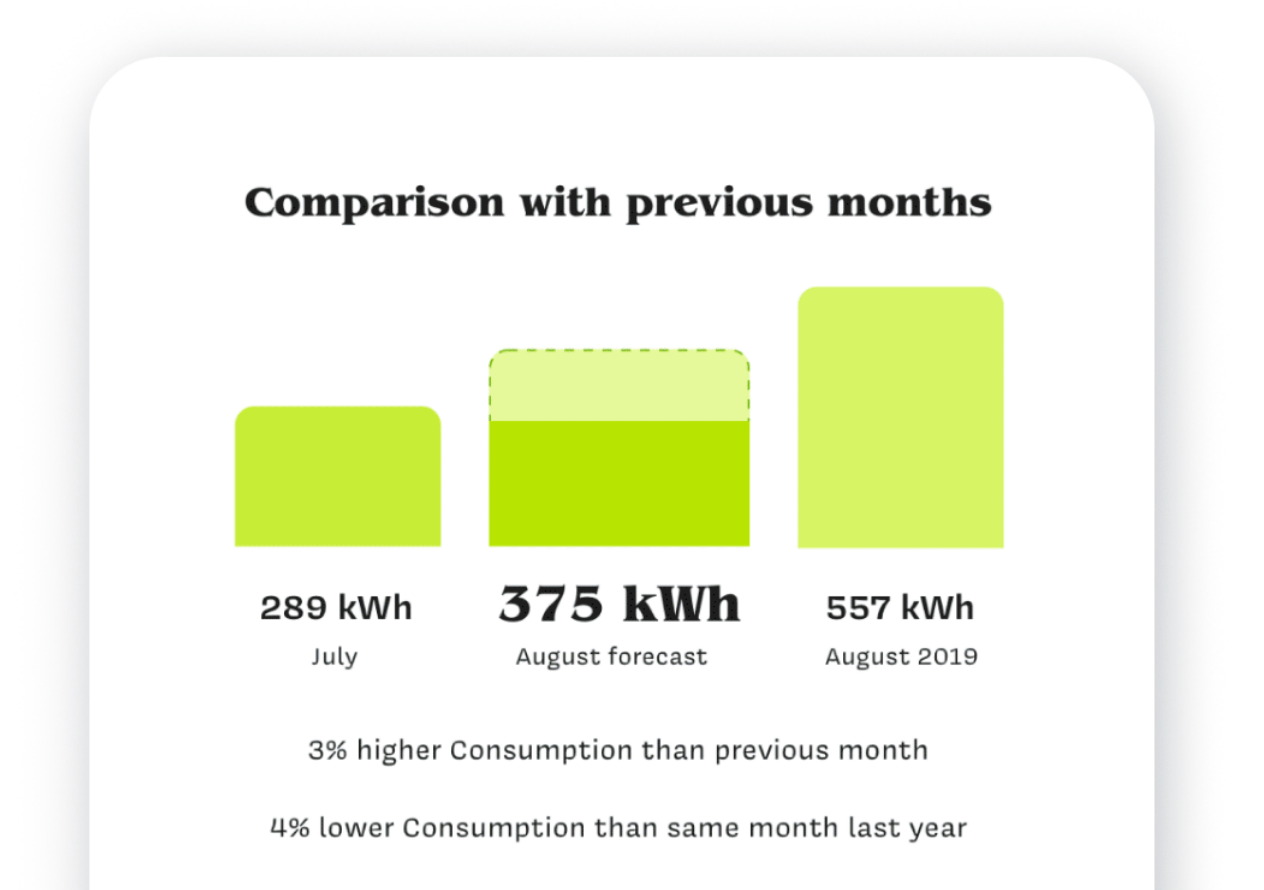
Home entertainment: 5 kWh 3%
Fridge & Freezer: 6 kWh 3%
Standby: 4 kWh 2%
Other: 2 kWh 1%
For more accurate estimation
Keep home profile updated


Insights
Day
Month
Year
July 2020
375 kWh
Total consumption

Challenge 2: Energy cost forecasts

Consumption predictions provided customers with cost estimates for their next energy bills, helping them anticipate and manage expenses more effectively.

User-Friendly Interface:
The development team, consisting of solution developers, data analysts, and user interface designers, ensured that the energy use monitoring service was easy to learn and use.
Customer feedback gathered during the pilot phase has been instrumental for Lumme Energia. It has provided valuable insights that enable them to make further improvements to their solution. This input will be especially useful as they design their own solution using our APIs for both mobile and web platforms. Lumme Energia aims to leverage this feedback to create a tailored and user-centric experience, incorporating enhancements based on the valuable input received from their customers.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Customization and Localization:
Lumme Energia and Eliq worked closely together to tailor the solution to the Finnish market, ensuring it met the specific needs and preferences of their customers.
Adjustments, such as adding saunas to the consumption categories, are being developed to align the service with Finnish home characteristics.

> *"One of the reason this project has been so successful is much thanks to the Seamless Integration. Lumme Energia successfully linked its system with Eliq's analysis, leveraging Eliq's suite of APIs for advanced energy insights in a very efficient manner. Our most important input was with good data integration, as it is the basis of all analytics," adds*
>
> Vaidas Armonas, Eliq's Head of Data Science

Challenge 3: Customer centricity

Customers expressed their appreciation for the service, highlighting the benefits of having access to electricity use reports and gaining insights into their energy consumption habits.
The service encouraged customers to pay closer attention to their energy use and make conscious efforts to reduce consumption.
These successful results demonstrated Lumme Energia's commitment to providing innovative and customer-centric solutions to help customers manage their energy usage effectively.Customers participating in the pilot phase expressed positive feedback, appreciating the insights gained and the ability to plan their energy usage.
Lumme Energia has achieved a remarkable milestone in customer engagement, with their customers actively spending an average of 14 minutes per month on the portal. This engagement level is a staggering 16 times higher than the average utility customer. By actively participating in the portal, Lumme's customers demonstrate a strong commitment to energy management and savings. This increased engagement serves as a testament to Lumme Energia's effective strategies and the value their energy monitoring solution provides to customers.[2]

Here is what the customers have to say:

> *'It's great that consumers have access to reports on their electricity use. This helps everyone do their bit to save energy. I, for one, was surprised to see that heating and hot water account for almost 50% of the electricity we use, even though we have geothermal heating.'*

> *'Thanks to the service, I pay more attention to my energy use and monitor it more closely.'*

> *'My initial reaction is that it is particularly useful to know where the most energy is used in the home.'*

> *'It's interesting to see how we use energy and compare it with other households.'*

What's next?

The focus lies in harnessing the capabilities of the Eliq Insights API for future development. Lumme Energia have a compelling vision to integrate Eliq features into their mobile app as well as their web portal.
In order to maintain a consistent visual identity and user experience across both platforms, Lumme plans to leverage the Eliq Insights API while taking the lead in designing the UI/UX themselves. This strategic decision empowers them to create a seamless and cohesive experience for their customers, aligning with their brand and specific requirements. By utilizing the Eliq API and putting their own design in focus, Lumme aims to enhance the functionality and aesthetics of both their mobile app and web portal, providing a unified experience for their users - while helping them to save energy.

Want to know more?

For further information about Eliq's solution, please contact Wictor Hidefjäll at wictor@eliq.io.
For further information about the OmaLumme service, please contact Aki Martikainen at aki.martikainen@lumme-energia.fi.

References
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2. https://www.accenture.com/_acnmedia/pdf-65/accenture-customer-centricity-must-have-waste-energy-pov.pdf

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