



# Engaging the Public into Climate Resilience

***“Through the ÉcoWatt initiative, citizens started to understand electricity issues that they did not understand before.”***

Solange Audibert, Communication Manager in the PACA region, RTE<sup>1</sup>



Managing electricity consumption is a sometimes-neglected way of coping with the demand peaks caused by extreme temperatures. There are several reasons that few companies follow this approach: it runs counter to their core business of selling electricity, for instance. And since the effectiveness of the approach depends entirely on the ability of a company to convince consumers to take action, communications expertise is essential. Réseau de Transport d'Électricité de France (RTE) followed this approach to successfully manage demand for electricity with an initiative known as *ÉcoWatt*. As a transmission-system operator, RTE balances electricity supply and demand by managing fluctuations in output and forecasting demand peaks. In the Provence-Alpes-Côte d'Azur (PACA) and Brittany regions, the utility uses *ÉcoWatt* to decrease peak demand and increase the network's climate resilience. Over the long term, this benefits everyone: RTE is better able to manage the supply of electricity and the public learns about—and contributes to—managing important energy issues.

## CONTEXT

For most people, electricity is intangible. Few ever think about the complexity of the electricity system, because they can access it by simply flicking a switch. Yet the cumulative impact of small conservation measures, such as reducing thermostat settings during extremely cold weather, can produce significant benefits. In the French region of Provence-Alpes-Côte d'Azur (population of nearly 5,000,000) heating accounts for a significant portion of the demand for electricity; during winter, a decrease of just 1°C in outside temperatures can trigger a massive spike in demand. Reducing the temperature settings on home thermostats by even a degree or two would significantly reduce not only demand but also the pressure on electricity networks and generation plants. Convincing the public to take these types of actions, however, has proven to be a difficult task.

Toward the end of the 2000s, periods of extreme cold in the PACA region became a significant issue for the electricity network. The region's limited generating and transmission capacity could not always satisfy demand. During one period of cold weather, power outages had to be imposed on 50% of the region. This outage, along with smaller ones, have negative economic and social impacts, as some businesses—and even hospitals—must temporarily reduce their operations.

To address the issue, Réseau de transport d'électricité (RTE) embarked on a plan that combined the costly and time-consuming actions of increasing generation and transmission capacity with a less expensive and quicker option: a

campaign to raise public awareness. Engaging the public to take action in this way has rarely been successful in France or other countries. RTE's program, however, proved to be a huge success.

This case study demonstrates a way to increase climate resilience that is not directly linked to climate change. It is a story about how to successfully engage the public in managing electricity demand—an adaptation method that all energy companies should consider.

## THE ÉCOWATT INITIATIVE

RTE transports high-voltage electricity from generating stations to low-voltage distribution networks all over France. Part of its mission is to treat all stakeholders—providers, distributors, clients, etc.—fairly. RTE had originally planned a new transmission line for the PACA region to ensure a consistent supply of electricity, even during periods of extreme cold. The initial plan failed due to environmental concerns, however. "We understood quickly that we would need a different plan, because it would take at least six years to plan, gain approval of and build a new transmission line," says Solange Audibert, RTE's Communication Manager for the PACA region.<sup>1</sup> "So we asked ourselves: what can we do to make the population aware that the risk of major power outages still exists and to help them take action to prevent outages?"<sup>1</sup> At this point, RTE decided to collaborate with local communities and the Government of France by creating *Sécurité électrique PACA*, the initiative that later became *ÉcoWatt*.<sup>2</sup> *ÉcoWatt* aims to control electricity



**Figure CS6.1** Snapshot of the ÉcoWatt system webpage during a red alert<sup>2</sup>

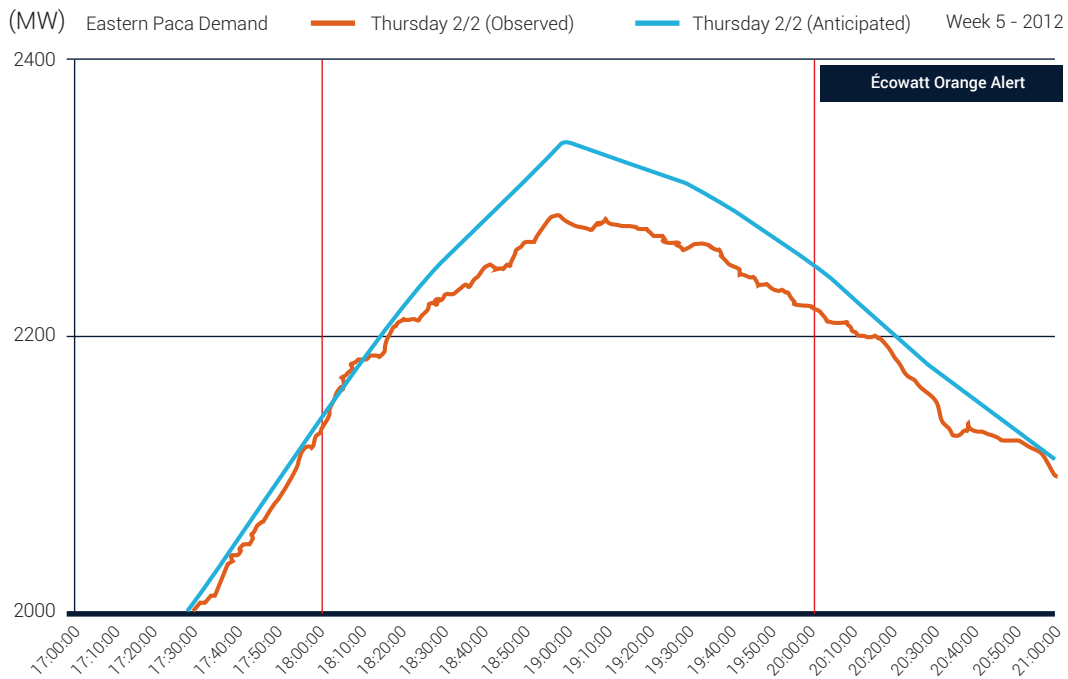
consumption by educating consumers and by alerting them to potentially major power outages. At the core of *ÉcoWatt* is a website that uses colour codes to indicate the current state of the electricity system: green indicates no risk of outage, orange shows moderate risk and red indicates high risk (see figure CS6.1). When an orange or red situation arises, all *Écow'acteurs*—people and organizations who have subscribed to *ÉcoWatt*—receive alerts by email, sms, Facebook or Twitter. In addition, the company suggests *Éco'Gestes*—actions to reduce consumption—based on the type of alert.

Currently, there are approximately 25,000 *Écow'acteurs* in the PACA region. Solange Audibert is quick to point out that this number is a little misleading, since several large organizations subscribe to the system as single *Éco'Wacteurs* and relay alerts to

many individuals (see figure CS6.2). In addition, many communities, local governments and the media share *ÉcoWatt* messages, further amplifying the initiative's impact.



**Figure CS6.2** Sample of the *Écow'acteurs* community<sup>2</sup>



**Figure CS6.3** Anticipated (blue line) and observed (orange line) electricity consumption in the PACA region on the night February 2<sup>nd</sup> 2012 during an orange alert<sup>1</sup>

At the beginning of February, 2012, *ÉcoWatt* communicated multiple orange alerts and its first red alert. “The response was phenomenal,” says Audibert. “The media broadcast the message actively, elected officials made public announcements, and there were even messages posted on electronic billboards along highways.” The impact on peak demand is significant during orange and red alerts: a decline of approximately 2-3%, as illustrated in figure CS6.3. “There was a multiplier effect during those events; we figure that we reached 20 times the number of *Écow’acteurs* subscribers.”<sup>1</sup>

The success of *ÉcoWatt* also drew the attention of others across Europe. Belgium recently implemented a similar initiative called *OffOn*, largely inspired by *ÉcoWatt*. “It is a good

initiative that also gets a lot of media attention,” says Audibert.<sup>1</sup> *OffOn* enjoys the support of Elia, Belgium’s transmission-network manager, and of the Government of Belgium.<sup>3</sup>

*ÉcoWatt* requires only a relatively small human-resource effort from RTE, as the regional communications team (three people) and a specialized communication firm performs most of the work. Solange Audibert manages and coordinates the firm’s work, a task that takes up between a quarter to a half of her working hours during the winter, and all of her working hours during orange and red alerts. The annual budget for the initiative is 80,000 to 100,000 Euros, a relatively small amount given the significant benefits it delivers to the region. “When an outage hits 40 to 50% of the region, it drains millions of

Euros from the economy and exposes people to all kinds of risks”<sup>1</sup> says Solange Audibert. She also emphasizes that the initiative was created to educate and sensitize, rather than to improve RTE’s bottom line.

## LESSONS LEARNED

“One of the key success factors was to work hand-in-hand with local communities and the government. Everyone took the problem seriously; they understood that the impacts of a potential power outage were large,” says Audibert.<sup>1</sup> Some entities, such as the *Agence de l’environnement et de la maîtrise de l’énergie*, had tried for some time to sensitize the public about energy consumption on a daily basis. The *Agence* and other similar organizations recognized *ÉcoWatt* as an ideal tool to deal with the risk of shortage and respond to the specifics of the PACA region and are founding partners of *ÉcoWatt*, along with RTE, to reduce peak consumption.

Another important factor was transforming a directive to reduce consumption into an eco-friendly message. “I think the public’s main interest in the initiative was to avoid a power outage,” says Audibert. “People also wanted to associate themselves with a positive initiative that has strong links to the environment, sustainable development and social responsibility.”<sup>1</sup>

The catchiness of message also played an important role in the media engagement. “Media were great fans of the initiative, they liked it and gave it ample coverage.”<sup>1</sup> During

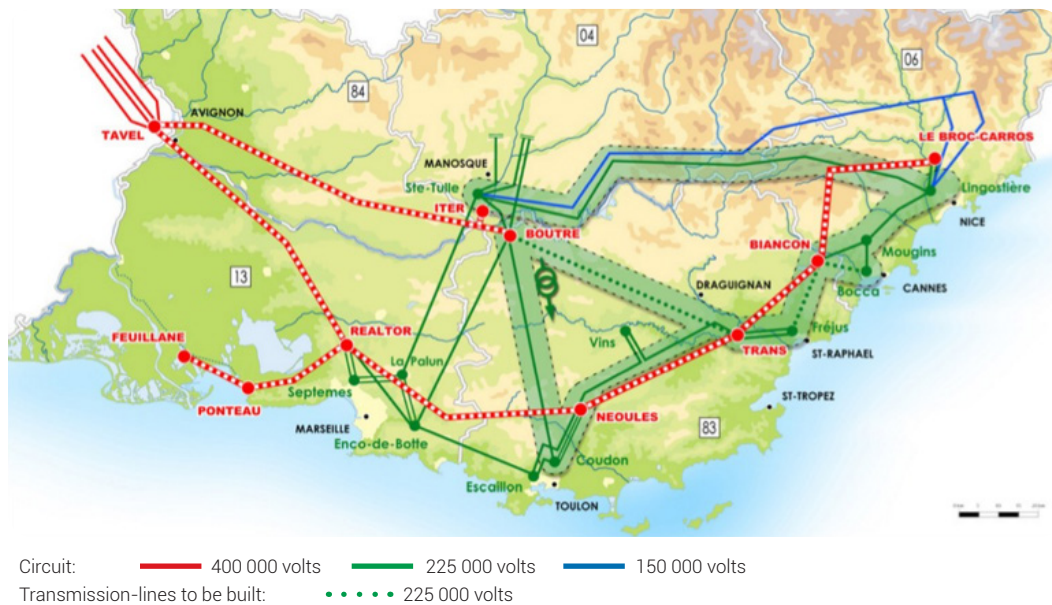
the month of February 2012, “there were over 1,000 press appearances, in all the media—radio, television, etc.—there was quite a buzz.”<sup>1</sup>

According to Solange Audibert, “Interest in the initiative created something of a virtuous cycle: because we had institutional partners and the media liked it, we succeeded in engaging the population. That attracted private companies and more communities, so the initiative continued to grow.”<sup>1</sup> Audibert also adds that RTE was lucky in a sense: at the beginning, unusually cold winters helped attract many subscribers.

In 2015, RTE completed the installation of a network of three underground transmission-lines known as *Le filet de sécurité PACA* (security net) (see figure CS6.4). The new network can supply the region with electricity in case of an outage along the main transmission line. As a result, *ÉcoWatt* lost its original raison d’être, but residents do not want the initiative to end just yet, according to a survey commissioned by RTE. “The survey showed that many are still interested in the information *ÉcoWatt* provides, even if the risk of an outage is almost nil,” says Audibert. “People just want to know.”<sup>1</sup> RTE also held internal discussions about whether to continue the initiative. “Many within the company wondered whether we were overstepping our role and compromising our neutrality by sending messages about reducing regular consumption patterns.” Ultimately, RTE decided to continue *ÉcoWatt* without alerts, and with less emphasis on risk and more emphasis

on the helpful actions—Éco’Gestes—to take during periods of peak demand.”<sup>1</sup> Given the long-term benefits of increasing public awareness about reducing consumption, discussions are also underway about expanding ÉcoWatt to other regions of France.

Before ÉcoWatt, RTE questioned the legitimacy and impact of its public-relations efforts. Today, RTE recognizes that the initiative improved the company’s reputation and helped raise public awareness of important electricity issues.



**Figure CS6.4** The Filet de sécurité PACA was brought into service in 2015. These three new, 225,000-volt transmission lines are shown as green dotted lines.<sup>4</sup>

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<sup>1</sup> Audibert, S. Personal Communication. (2015).

<sup>2</sup> Réseau de transport d’électricité. Écowatt-paca. (2014). at <<http://www.ecowatt-paca.fr/restez-au-courant/alertes-2/>>

<sup>3</sup> Elia, SPF Economy & SPF Interior. Off On Consommions l’électricité de manière durable et responsable. (2015). at <<http://offon.be/fr/>>

<sup>4</sup> Réseau de transport d’électricité. RTE-Le réseau de l’intelligence électrique (2015). at <<http://www.rte-france.com/>>



## KEY TAKEAWAYS

**1** A well-designed communications campaign can help educate the public about climate resilience and engage people to take action.

**2** A positive message that has strong links to the environment, sustainable development and social responsibility helps to engage the media and the public in climate resilience efforts.

### ORGANIZATION(S)

Réseau de transport d'électricité (France)

### POWER SUB-SECTOR(S)

Electricity transmission and generation

### ADAPTATION TYPE(S)

- Management - Demand management and tariffs

### CLIMATE CHANGE IMPACT(S)

- Periods of extreme cold

### ADAPTATION COSTS

- The cost of implementing and maintaining ÉcoWatt is moderate.

### ADAPTATION BENEFIT(S)

- Prevent power outages
- Increased network resilience
- Increased public awareness about the long-term benefits of reducing electricity consumption

### CONTACT DETAILS

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### FULL REPORT

<https://ouranos.ca/en/programs/energy-adaptation-case-studies/>