



Dear colleagues and friends,

I am very happy to be with you again. 2016 was a busy and exciting year, and I am keen to report some of the things that happened. But first things first: I hope that you, your family and friends enjoy a peaceful and prosperous 2017!

In 2015 politicians concluded that we must and will go for a renewable future. In 2016 the path and our possible contribution became much clearer.

The most important step was the decision for top-down change: The future lies in real time markets and variable end customer prices. As market design is prescribed by regulation, this must change first. For Easy Smart Grid this means: Wind that blew straight into our face changes direction to allow us smooth sailing.

Knowing that you offer a high value proposition is very nice. But it is better if others recognize that and invite you for presentations and project discussions as happened several times in 2016.

Finally, many elements must be worked on until a solution performs day in, day out, all year long. So we worked with partners on concrete implementation of the elements needed.

In the newsletter you will find more detail on all of this. And if you wish to learn more about the controller being implemented this year, the leverage of our technology into organisations that realize they need innovative approaches for success - stay tuned to the news. Happy reading!

Thomas Walter | *Founder and Managing Director*

A new Energy Market Design - the key to successful transformation



This looks like a beautiful holiday location - and indeed it is one (Photo by Thomas Walter). But Bornholm/Denmark is also the site of "Ecogrid", the most advanced smart energy project in Europe. Electricity prices continuously reflect the balance of supply and demand, stimulate automated flexible loads to shift operation and reward contributing end customers. This allows an energy system based on volatile energy from wind and sun that need fewer costly batteries. As Easy Smart Grid develops an ICT solution similar to the Ecogrid approach, but with much faster response and at lower cost, a conference there was a welcome opportunity to meet those who had done it, and [see the installation](#).

Just three months later the European Commission published its "third winter package on future market design". This specifically requires variable prices and financial reward for demand response [provided by end customers](#). An important step to the implementation of "Real time markets" that have been tested in Bornholm and emerge as the method of choice for future energy systems.

International

Smart Micro Grids are ideally suited for regions with low population density and growing infrastructure. Well, this is not precisely what we find in Germany, but there are other places...

Easy Smart Grid welcomed a delegation from Canada. They toured Germany for one week to learn about experiences and [fresh ideas](#) on energy.

We were honoured to be invited as Experts in an EU-India programme on smart grids and smart cities. The purpose is to accelerate energy transformation exchanging [best practices](#).

Professionals look for new solutions

Easy Smart Grid looks for new solutions jointly with experts on automation and energy:

At the "Industrial Communication Congress" organized by Phoenix Contact, Easy Smart Grid presented how decentral automation allows lean, efficient and robust [distributed automation](#). As the number of devices grows exponentially, central must be replaced with decentral automation and pure control theory enhanced by market mechanisms towards swarm intelligence. Of course, visitors also wanted to play with the demonstrator (right).

In 2015 VDE-ETG, the association of German Electrical Engineers working on present and future power systems, had published the study "Cellular Grids". The main focus was to find ways to reduce the need and cost of long energy transmission lines and their cost. On invitation of its president Thomas Walter detailed [how to implement](#) such a cellular grid based on our approach of smart micro grids, and to achieve this also with much less cost of other components, complexity and risk.



Building the know-how base

ConDyNet progress meetings have already become regular and productive events to participate in.

2016 added several team meetings of [MMG-S](#). In this EIT Digital project we helped to develop a simulation and optimisation tool for micro grids. On the one hand, Easy Smart Grid has many contacts to potential users of such a design tool, on the other we also will need one to assess the value we can create for our customers. (Photo of concluding workshop in Berlin: Thomas Walter)

Another important achievement was the development of a demonstrator early in 2016 (Photo in section on "professionals" above). Erik Buchmann's brilliant contribution greatly helps to [explain and show](#) how swarm intelligence can replace complex control systems. Unfortunately he now has less time for such things in his new professorship on data security!

