



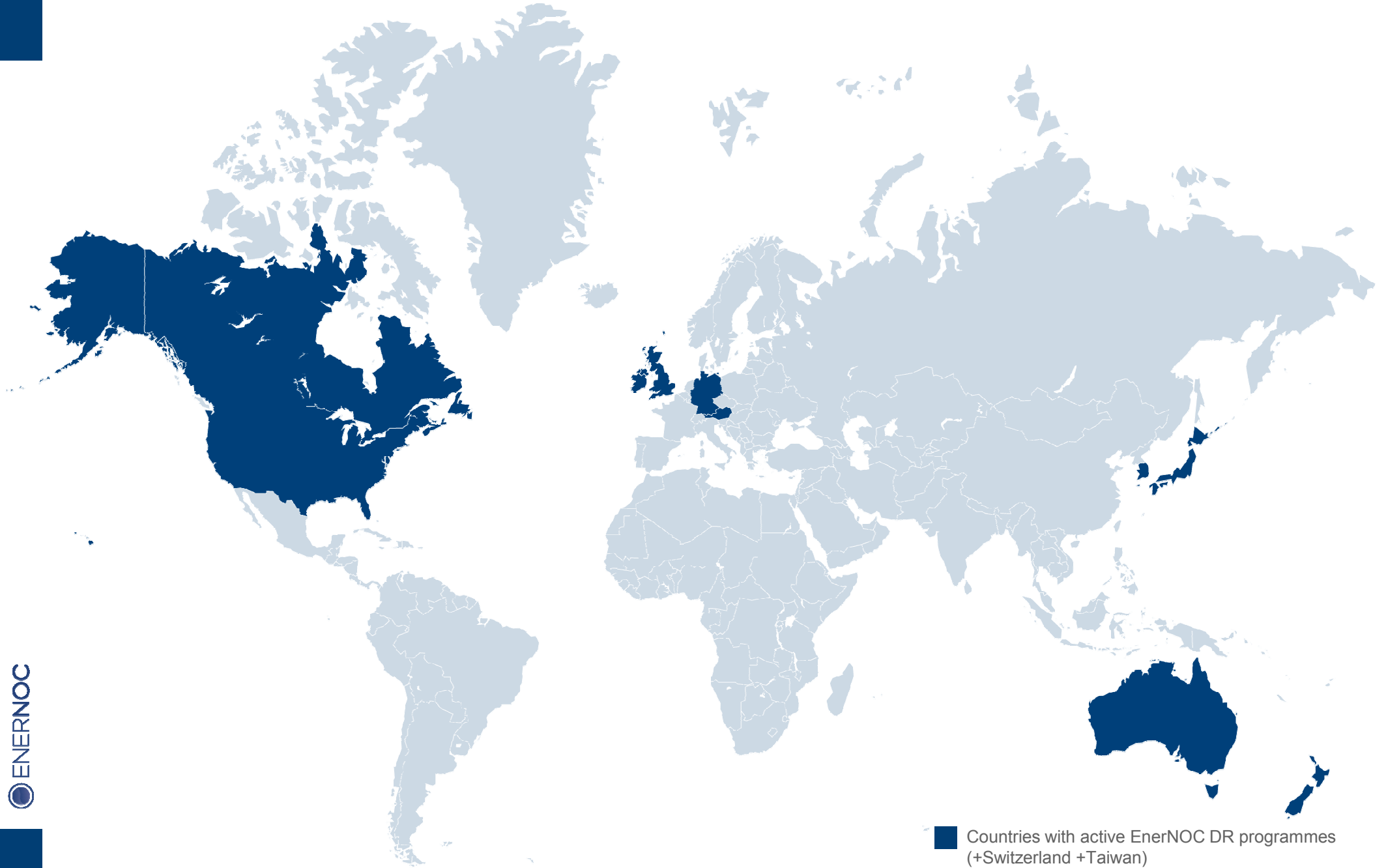
## The value of Demand Response for an efficient and secure electricity system

Power Ring Conference, Warsaw, 18 December 2015

Andreas Flamm, Director Regulatory Affairs Europe

# EnerNOC: 50+ markets & programmes in 12 countries

...the world's largest Demand Response Aggregator



# Demand Response is a multi-purpose resource

## Capacity

- Peak Management / Emergency / Reliability
- Local Transmission & Distribution Network Support

## Ancillary Services

- Frequency regulation
- Operating Reserves (positive and negative)

## Energy

- Direct participation wholesale energy markets
- Dynamic pricing programs

# Demand Response provides many benefits to the system

- Provides flexibility and capacity
- Reduces need for network expansions
- Lowers CO2 emissions
- Increases competition
- Delivers additional income for participating industrial and commercial companies
- Drives innovation and empowers consumer to participate in the electricity market

# Demand Response drives real system cost savings

Examples from PJM in the US



## Capacity

\$11.8 billion saved

2013/14 Base Residual Auction

## Network

\$3.5 billion avoided

Cancellation of PATH projects/MAPP

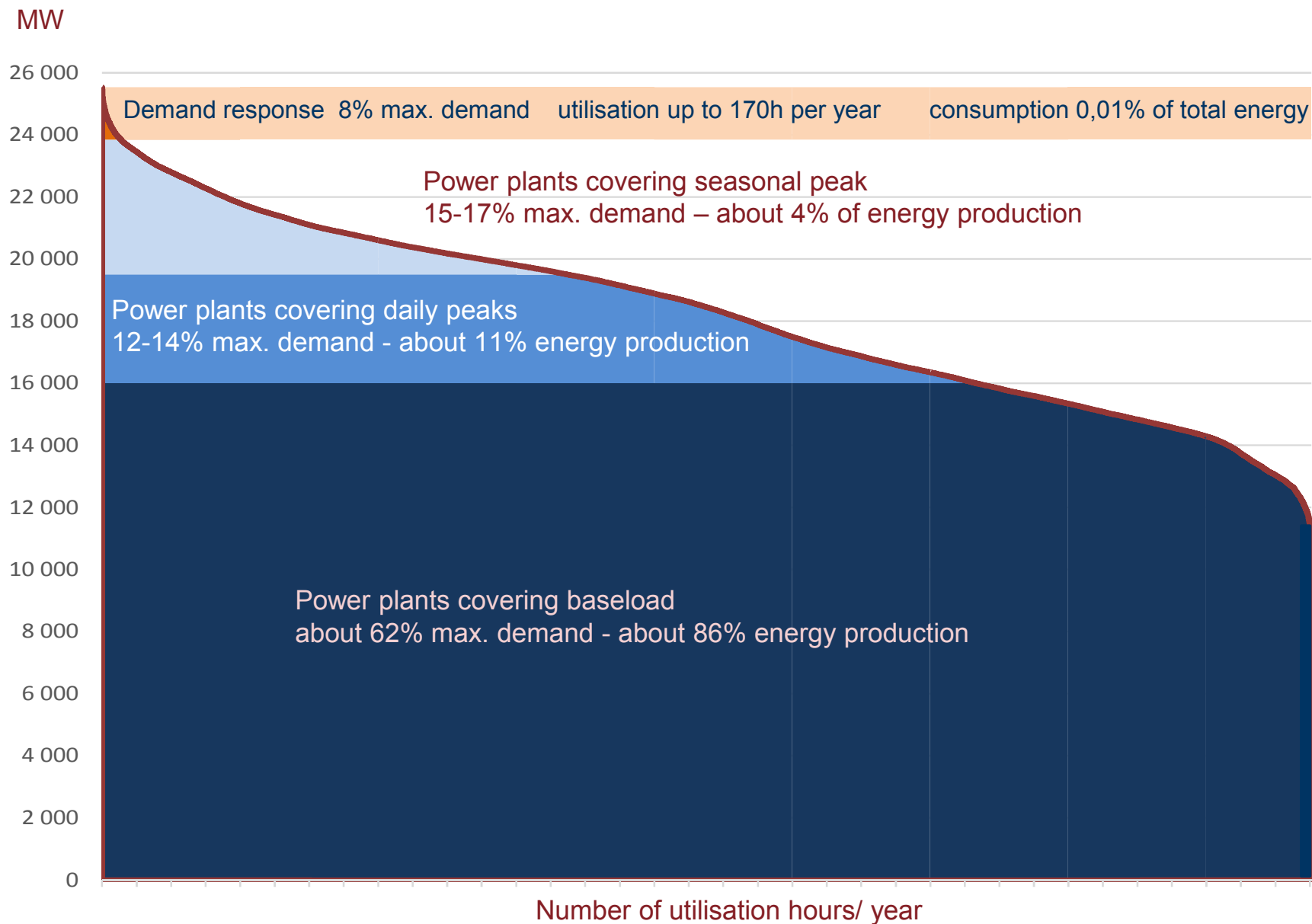
## Energy

\$650 million saved

DSM price impact during 1-week heatwave

# DR is a very efficient peaking resource

DR can replace power plants that are used very rarely



# Availability Payments Are Crucial for DR Success

Market data confirms that availability payments are key to customer participation.

- Customers need to be convinced. DR is not the core of their business
- DR participation requires up-front investment
- Availability payments keep customers engaged, and reliable
- **Availability payments guarantee that participants start out ahead, and they guarantee an ongoing return to those participants**

NERA  
ECONOMIC CONSULTING



## Effective Use of Demand Side Resources: The Continued Need for Availability Payments

October 23, 2013

*“While we could certainly imagine demand-side resources who provided supply/demand balancing services without availability payments, both theory and experience demonstrate that it would be unwise to try and implement such a scheme.”*



Thank you for your interest.

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