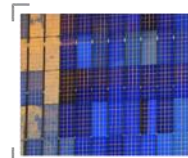


Jan Kowalczyk, CEO, Banner Group, Warsaw, Poland

## 6<sup>th</sup> European Energy Forum

### Unlocking smart capabilities for local authorities



Paris, 22-23 May 2017

## Contents

- I. The main concern of local authorities
- II. Taking control of smart city issues
- III. Becoming proactive in the energy area
- IV. First, smart metering
- V. Second, the right legal framework and active local management
- VI. Third, supporting diversification of the supply market
- VII. Are we going towards new business models ?

## The main concern of local authorities is to ensure sustainable development and quality of life

Specific needs and demands regarding healthcare, energy, safety, public services, ...

<i>Utilities</i>	<i>Health</i>	<i>Public Services</i>	<i>Building</i>	<i>Transportation</i>
<ul style="list-style-type: none"><li>• Intelligent Utility Network</li><li>• Smart Metering</li><li>• Energy Optimization</li><li>• Smart Production</li><li>• Demand Planning</li><li>• Advanced Distribution Management</li><li>• Operations Control</li><li>• River Basin and Smart Water Management</li><li>• Wastewater Treatment</li></ul>	<ul style="list-style-type: none"><li>• Smart Care Management</li><li>• Connected Health</li><li>• Smart Medicine Supply</li><li>• Mobile Health</li><li>• Remote Healthcare Management</li></ul>	<ul style="list-style-type: none"><li>• Smart Citizen Services</li><li>• Smart Tax Administration</li><li>• Smart Customs, Immigration, Border Management</li><li>• Smart Crime Prevention</li><li>• Smart Emergency Response</li><li>• Smart Financial Management</li></ul>	<ul style="list-style-type: none"><li>• Energy Optimization</li><li>• Asset Management</li><li>• Facility Management</li><li>• Video Surveillance</li><li>• Recycling and Power Generation</li><li>• Automatic Fault Detection Diagnosis</li><li>• Supervisory Control</li><li>• Audio / Video Distribution Management</li></ul>	<ul style="list-style-type: none"><li>• Intelligent Transportation</li><li>• Smart Public Transportation</li><li>• Integrated Fare Management</li><li>• Fleet Optimization</li><li>• Tolling Solutions</li><li>• Real-time Adaptive Traffic Management</li><li>• Smart Parking</li><li>• Traveler Information Systems</li></ul>
	<div><i>Education</i></div> <ul style="list-style-type: none"><li>• Smart Classroom</li><li>• Performance Man.</li><li>• Asset Management</li></ul>			

## Local authorities will take control of their 'smart city' issues thanks to citizens' involvement and by addressing the infrastructure problem

Taking control of smart city issues

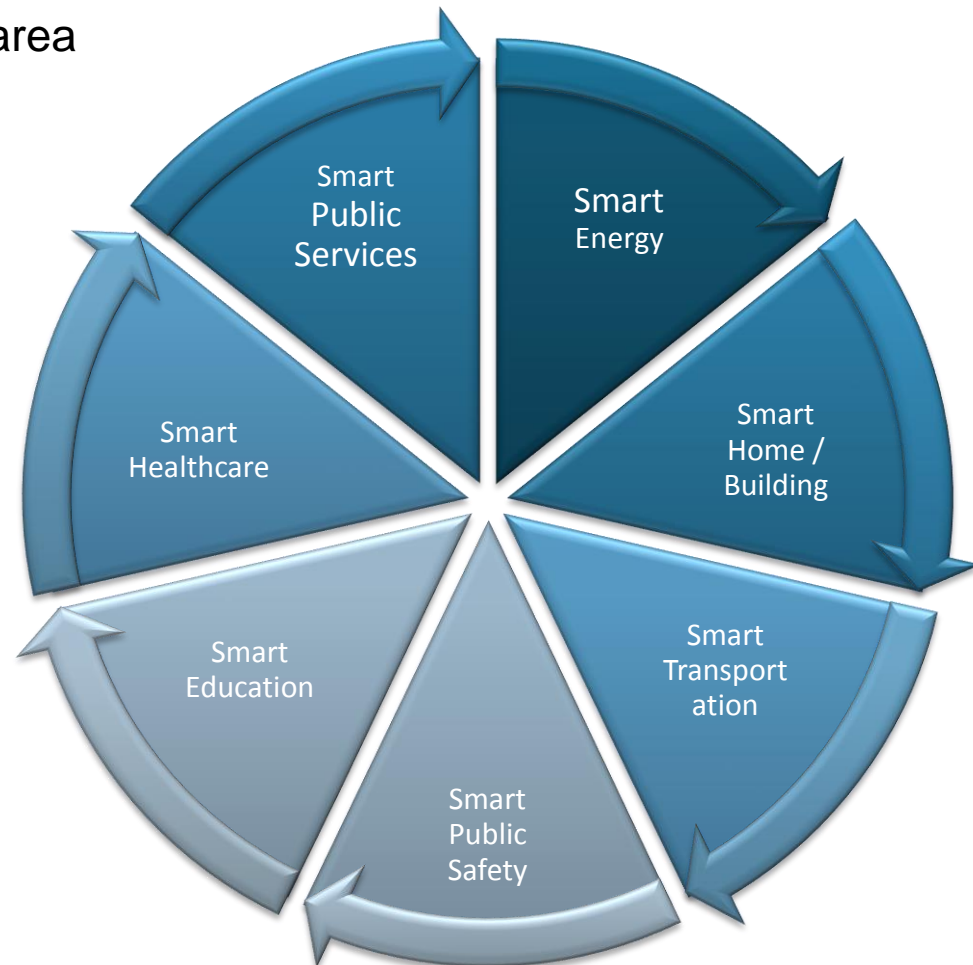


## Here's the local authorities' dilemma: to be efficient, local must become smart – and the tangible smart begins with smart energy

Becoming proactive in the energy area

Without becoming proactive in the energy area, local authorities cannot tackle the issue of many other smart public areas

➔ smart energy becomes a key value driver in local government



## Smart metering is a first key enabler in the transformation towards smart energy

First, smart metering

Digitization of one of the last analogue industries isn't happening a minute too soon:

- few of us would imagine having to call our mobile phone provider to tell them how many texts we'd sent this month
- and we'd raise an eyebrow if we were given an estimated bill at the supermarket checkout

Eight in ten people who've already got their smart meter say they would recommend them to others

A similar proportion are already using their smart meter to help them use less energy and start to think about other smart products and services

## The right legal framework and active local management create a second key enabler in the transformation towards smart energy

Second, the right legal framework and active local management

There are many examples of smarter energy solutions across Europe

Poland introduced a concept of energy clusters, which are civil law agreements on generating and balancing the trade in energy from RES within the distribution grid, with a voltage not exceeding 110 kV.

The agreements are concluded between households, businesses, research and development units and/or local government.

An energy cluster covers either one district or five municipalities.

In Groningen, a mid-sized town in the Netherlands, local authorities are trialing an approach that enables households to choose the sources of energy they use, including buying it from their neighbors who may have solar panels.

The trial also offers them the option to sell unused energy back to the grid or to other residents.



## A mix of long-term agreements, lighter regulation and entry of new suppliers should increase diversification of the supply market

Third, supporting diversification of the supply market

---

### **New type of long-term agreements**

Local authorities are in a great position to alleviate supply uncertainties by working with local generators and forming long-term agreements to purchase their electricity. This strengthens investor confidence for generators, helping renewables to flourish locally.

It creates a potential to generate margins of 2-4% on revenues, providing significant ~~potential income for local authorities willing to enter the market.~~

---

### **Shift towards less prescriptive regulation**

The regulatory landscape in the coming years is set to shift towards less prescriptive regulation of the energy market.

This will make it easier than ever for non-traditional business models to enter the market and create innovative products and services for consumers.

---

### **New suppliers entering the market**

As the energy-supply market has evolved, so has the emergence of IT, advice and trading providers offering services that allow new suppliers to enter the market at a lower cost than historically, and without the need to undertake all activities required of a supplier on day one. By contracting out to established and proven service providers, it is possible to establish a presence in the energy-supply market and, as the new company grows in size and experience, it can (if it chooses) take more of the industry process activity in-house.

---



## There are several potential energy supply models for local authorities

Advantages and disadvantages of routes to market

	Fully licensed supply	Licence exempt supply	Licence- lite supply	Sleeved supply	White label supply
Ability to achieve the benefits of being a supplier					
Better value for money for residents	▶	▶	▶	▶	▶
Tailor energy supply for local communities	▶	▶	▶	▶	▶
Support local generation	▶	▶	▶	▶	▶
Supporting economic development	▶	▶	▶	▶	▶

▶ = High difficulty/cost

▶ = Medium difficulty/cost

▶ = Low difficulty/cost

And more and more  
private wire supply  
arrangements

## The return of 'local', combined with 'smart', engenders profound changes in traditional business models in the energy industry

Are we going towards new business models ?

### ENERGY DELIVERY COMPANY

- Locally based, smaller renewable installations are now bypassing national transmission systems and instead connecting straight to local distribution networks, closer to end consumers
- Thus the whole energy delivery company business model goes under question mark



### INDEPENDENT POWER PRODUCER

- Partnership with local authorities brings about a new hope
- Model able to maintain its past attractiveness



### TRADITIONAL BUSINESS MODELS IN THE ENERGY INDUSTRY

- Low synergies between various business segments (generation, trading, distribution, retail)
- Diminishing investment attractiveness



- New opportunities created by local context, especially in cooperation with local authorities
- Those new opportunities continue to face difficult scalability



### VERTICALLY INTEGRATED UTILITY

### INDEPENDANT MERCHANTS