

# SG and SM in the Czech Republic

Smart Grids and Smart Metering – intentions of the Czech Republic and relation to the requirements of the European Commission

Discussion on September 4, 2015



MINISTRY OF  
INDUSTRY AND TRADE

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## Legislative background EU

- **Directive 2009/72/EC – concerning common rules for the internal market in electricity of 13 July 2009**
- **Commission Recommendation 2012/148/EU on preparations for the roll-out of smart metering systems of 9 March 2012**
- **Communication COM/2012/663 final “Making the internal energy market work“ of 15 November 2012**



## Directive 2009/72/EC – Annex I, article 2:

Member States shall ensure the implementation of intelligent metering systems that shall assist the active participation of consumers in the electricity supply market. The implementation of those metering systems may be subject to an economic assessment of all the long-term costs and benefits to the market and the individual consumer or which form of intelligent metering is economically reasonable and cost-effective and which timeframe is feasible for their distribution.

Such assessment shall take place by 3 September 2012.

Subject to that assessment, Member States or any competent authority they designate shall prepare a timetable with a target of up to 10 years for the implementation of intelligent metering systems. Where roll-out of smart meters is assessed positively, at least 80 % of consumers shall be equipped with intelligent metering systems by 2020.

The Member States, or any competent authority they designate, shall ensure the interoperability of those metering systems to be implemented within their territories and shall have due regard to the use of appropriate standards and best practice and the importance of the development of the internal market in electricity..



# Commission Recommendation 2012/148/EU

**Recommended procedures and precautions for the protection of personal data and recommended the common minimum functional requirements for smart metering of electricity**

- I. Data protection and security considerations**
- II. Methodology for the economic assessment of the long-term costs and benefits for the roll-out of smart metering systems – among others:**
  - reference to the M490 - interoperability standards**
  - list of 10 functionalities – for customer, metering operator, commercial aspects of energy supply, security and data protection**



# Communication “Making the internal energy market work“

**Annex 1: "Action Plan for Europe" contains a task for all Member States:**

**“Prepare national action plans for swift deployment of smart grids“**

**Timing: 2013**

At the end of April 2015 had been plans developed and approved by the Government in only two EU countries - the Czech Republic and Sweden.



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## Relevant CZ documents – SM (1)

- “Economic assessment of all the long-term costs and benefits for the market and the individual customer through application of smart metering systems in the Czech Republic power sector“ (hereafter “CBA AMM electro“) <http://www.mpo.cz/dokument106758.html>
- Several rounds of additional explanations and submission documents – since December 2012 – in questioners, presentations at workshops discussions, comments to the Commission’s findings, and finally – in June 2013 – comments to the draft of Commission’s study with comparison CBAs AMM of Member States.



## Relevant CZ documents – SM (2)

**Preparation of CBA AMM electro was based on analytical studies and data from projects already running for more than two years:**

- done in compliance with Recommendation 2012/148/EU
- the initial situation of the Czech Republic – benefits for customers already available (HDO), low level of losses
- prices of available technology/components were supplied by vendors

### **Result:**

- **installation at all LV customers by the 2020 would be significantly disadvantageous**
- **Calculated net present value is -23.63 billion. CZK (NPV discounted at 1. 1. 2013).**

## Relevant CZ documents – SM (3)

### **CBA AMM electro – Final Recommendations (abridged):**

- Not to start with blanket implementation until 2018
- Continuously follow technological development in the field of smart networks and metering; in particular development of parameters and prices of key components AMM
- Set national communication standards, standards of metering devices and major AMM system elements (by 2017)
- Assess applicability and effectiveness of the smart metering by 2017
- Based on the evaluation of the pilot projects elaborate the implementation plan of AMM system as a part of a wider project of smart grids implementation



# Relevant CZ document – SG

→ **National Action Plan Smart Grids (NAP SG)**



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# Personal data protection

Data protection, protection of personal data is one of open topics regarding SM and SG

- The Office for Personal Data Protection is engaged in the SG agenda
  - Position No. 1/2014 – Smart metering and personal data protection
  - Cooperation MIT and Office for Personal Data Protection is essential
- Standardization of the smart metering communications architecture (M/441 and M/490) shows one important approach for solution – two different groups of data and two data flows



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## Studies prepared by the EC for publication (1)

Report “**Benchmarking smart metering deployment in the EU-27 with a focus on electricity**“ was already published - COM(2014) 356 final, 17.6.2014

### “**Study on cost benefit analysis of smart metering systems**“

- Focused on 8 states reporting negative or inconclusive results of CBAs AMM (CR, DE, SK, BE, LT, LV, HU, PT)
- It will contain recommendations for Member States and the Commission; documents the different national conditions
- Approval at EC is running, expected publication – autumn 2015

## Studies prepared by the EC for publication (2)

**“Report on a survey regarding Interoperability, Standards and Functionalities applied in the large scale roll out of smart metering, in EU Member States“**

- Focused on 17 states implementing, or decided to roll-out Smart Metering (mass deployment of smart metering)
- Assesses the implementation of systems in terms of compliance with the recommendations of the Commission on 9 March 2012, in particular the three basic functions defined in the customer's favour
- Report should give to Commission recommendations for further action in support of the massive deployment of smart metering systems in other Member States.
- We expect the publication by the end 2015



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## Comparison with other Member States EU

- Full rollout of smart meters is in Italy and Sweden; now it is necessary to restore it and expand functionality
- Significant benefits evaluated at some countries with positive economic evaluation are reduction of losses, savings in consumption, optimizing of load profile (peak shaving) – *already implemented in CR*
- Not all recommended functions are implemented (50% of countries) - it affects primarily the costs in the evaluation
- Some states solve the selective implementation
- DE is preparing the publication of a package regarding the SG (*Summer / Autumn 2015*); an essential part will be the topic of data protection and data access

# Conclusion

- **Work already published up to now or being prepared for publication by the Commission are not inconsistent with the recommendations in CBA AMM electro CR**
- **Work made in the EU on the field of standardization and interoperability will smooth the introduction of SG and SM in Czech Republic**
- **The Czech Republic will implement SG and SM gradually by cost effective way; the costs and benefits for customers shall be in balance.**



# Thank you for your attention



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