

# Report on Smart Gas Metering

October 22, 2010  
London

**BCG**

THE BOSTON CONSULTING GROUP

**euro**  **gas**

THE EUROPEAN UNION OF THE NATURAL GAS INDUSTRY

# Objective and scope of the report

- Directive 2009/73/EC states that "the implementation of smart gas meters may be subject to an economic assessment" of all the long term costs and benefits to the market and to the individual consumer
  - A Cost-Benefit Analysis (CBA) should be done in each MS no later than September 3, 2012
- The Distribution System Operators (DSOs) will be heavily impacted by the final decision from the regulatory authorities in most European countries
  - This report includes
    - Assessment of functionalities and available technologies
    - Detailed CBA methodology for country-by-country evaluation
- The report is co-authored by the Eurogas Distribution Committee and The Boston Consulting Group (BCG)
  - Eurogas DC Committee is composed of national gas associations and DSOs from 11 European countries with over 48 million connections and ~800,000 km in distribution networks
  - The Boston Consulting Group is a global management consulting firm founded in 1963 with over 60 offices around the world

# Smart gas metering implementation

Multiple solutions analyzed

## Functionalities

Remote reading

2-way communication

Advanced tariff and payment systems

Remote dis/enablement

Communication with other devices

Real-time metering/billing

## Technologies

Retrofit kit  
(with conventional meter)

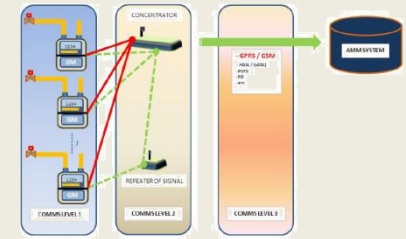


New smart meter

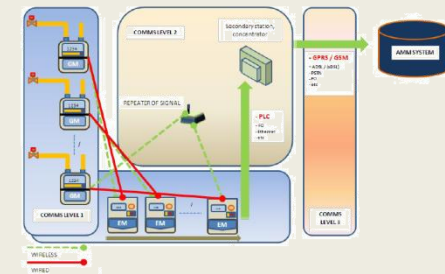


## Communications

Communication system



Link to power network's communication



# Specific analysis required for gas

## Power



## Gas



Peak Shaving

Tariffs

Energy Efficiency

Batteries

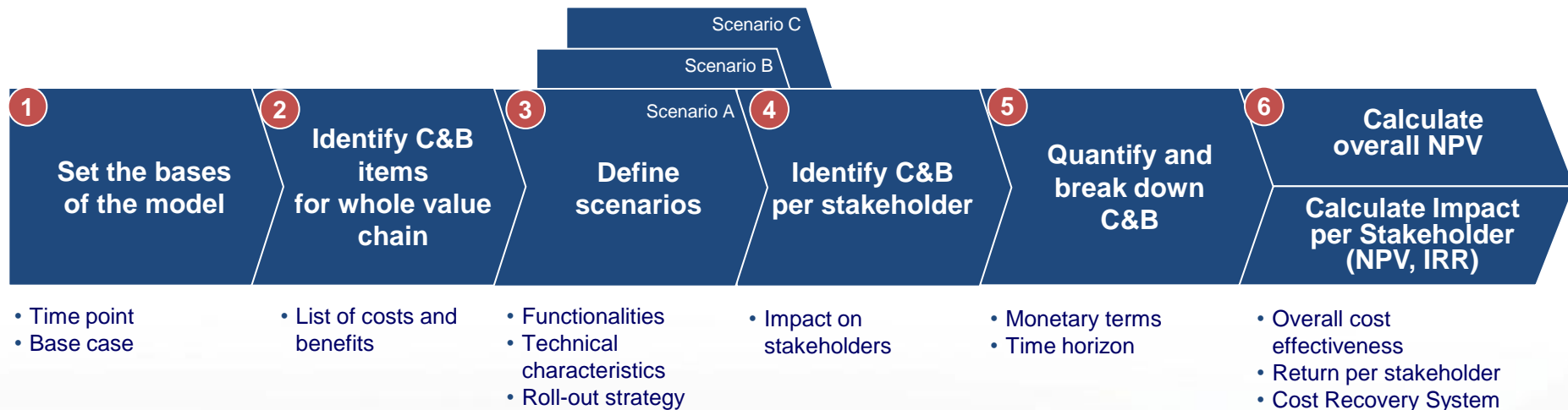
PLC

Disablement

Smart Grids

Investment Cost

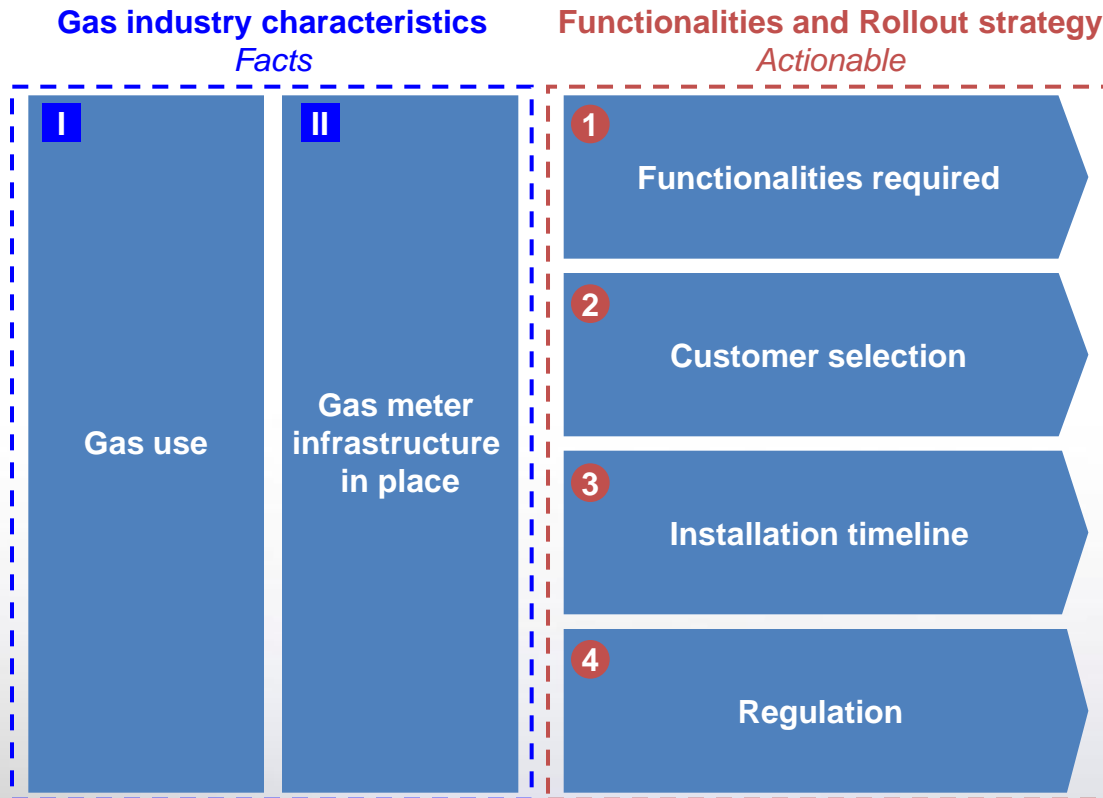
# Detailed, comprehensive CBA methodology



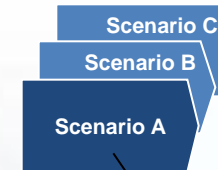
CBA outcome provides input for policy making on whether or not and how to implement smart gas meters

# CBA to be developed at a National level

## Key drivers in the CBA



## Cost Benefit Analysis



Optimal Smart Gas Metering Policy

★ **Real benefits to consumers** are key for the implementation success

Given the same rollout, CBA may be positive in one country but negative in another

# Most favorable scenarios

CBA most likely positive if

## Functionalities and technology

Retrofit kit solution

Shared communication infrastructure

No limitation to physically connect gas to power supply

## Customer selection

Targeted selection of consumer segments  
(e.g. new developments)

## Installation timeline

Start of rollout aligned with technologies and standards

Long, flexible rollout period

## Regulation

Adequate compensation scheme

# Contact authors and distribution of reports

## Contact authors

- **Joaquín Mendiluce** (President of the Eurogas Distribution Committee – Gas Natural Fenosa): [jmendiluce@gasnatural.com](mailto:jmendiluce@gasnatural.com)
- **Magín Yáñez** (Global Energy Networks Leader, Partner and Managing Director at the Boston Consulting Group): [yanez.magin@bcg.com](mailto:yanez.magin@bcg.com)
- **Carlos Villalonga** (Project Leader – SEDIGAS): [cvillalonga@sedigas.es](mailto:cvillalonga@sedigas.es)

## Report available

- Full document can be downloaded at the following site
  - <http://www.eurogas.org/>
- Copies to be distributed here