

# Energy Storage and Flexibility EU and Belgian regulatory aspects

---

fieldfisher

David Haverbeke

Lawyer, Member of the Brussels Bar  
Partner Fieldfisher, Head of Energy Regulatory

SEII – 8 November 2017

## Outline of presentation

- Context and Facts
- Current Regulatory Status
  - At EU level
  - In Belgium
- Developments and Trends
  - Impact of other market segments
  - Project development and contracts
- Conclusive Remarks

## Context and Facts

- Regulatory bottlenecks – current regulatory systems for electricity markets have not been designed with storage in mind
- Increasing intermittency of generation requires increased level of storage
- Policy and regulatory changes needed to support the deployment of and create an equal level playing field for electricity storage

## Context and Facts

- Storage specific legal issues include:
  - Roles and responsibilities of networks operators towards storage operators
  - Non-discriminatory treatment between storage operators and comparable market players (generators, flexibility providers) e.g. on access to ancillary services
  - Development of tariff methodologies
  - Data compliance and management
  - Standardisation and contracts
  - Relationships with NRAs

## Current Regulatory Status – at EU level

- Today, still no specific EU legally binding framework for energy storage
- However, various Directives have addressed the benefits of storage:
  - Energy Efficiency Directive 2012/27/EU
  - Renewable Energy Directive 2009/28/EU
  - Electricity Directive 2009/72/EU
- Besides, trends towards equal playing field between generation and storage confirmed in:
  - Clean Energy Package
  - Network Codes
- Is this specific enough?

## Current Regulatory Status – at EU level

- Substantial efforts under research and innovation (R&I) competence:
  - Horizon 2020 calls: evolution
    - 2016-2017: *specific* calls on smart grid and storage technology innovations (some already concerning at the demonstration phase for their integration)
    - 2017-2018: still specific calls (maturity and testing) but storage increasingly a role as part of the ‘solution’ under various calls such as market design (incl. flexibility), local energy networks, smart cities and communities, ...



## Current Regulatory Status – at EU level

- Research and innovation (R&I) competence

Table 14: H2020 budget split by thematic area for the sub-set of projects analysed for this study

H2020 Energy Programme projects				All SC3 projects <sup>31</sup>
	# Projects	EC Funding total (€)	% Funding	% Funding
EE - Buildings and consumer	60	120 631 835	31 %	18 %
EE - Financing	23	36 096 828		
EE - Heating and Cooling	10	19 127 283		
EE - Industry and products	13	32 460 938		
LCE - Grids/Storage	23	237 307 015	42 %	51 %
LCE - RES/Bioenergy	23	40 614 309	27 %	10 %
SCC	9	176 573 540		
<b>Total</b>	<b>161</b>	<b>662 811 747</b>		

Source: European Commission, March 2016: H2020 SC3 data

## Current Regulatory Status – at EU level

- Energy State Aid Guidelines 2014-2020
  - Member States to support (e.g. under CRM) alternative measures to generation and substitutable technologies such as energy storage
- State of the Energy Union (SWD(2017) 32 final)
  - Storage of electricity primarily seen as a flexibility asset within the Energy Union dimension “A fully integrated internal energy market”
  - Substantial focus on research and innovation (R&I): financial allocations from European Regional Development Fund (ERDF) and Cohesion Fund (CF)



## Recent developments – at EU level

- Clean Energy Package
  - Storage recognised as a priority area for clean energy research and innovation, alongside electro-mobility, decarbonisation of the building stock and integration of renewables
- Commission staff working document “Energy storage – the role of electricity” (SWD(2017) 61 final )
  - Energy storage - relevant energy system developments
  - Regulatory framework and markets for energy storage

## Current Regulatory Status – in Belgium

- Until recently, no specific regulatory framework was given to energy storage
- Adoption of 13 July 2017 act amending the federal Electricity Law
  - Definition of ‘electricity storage’ and of ‘demand flexibility’
  - Task to federal regulator CREG to develop a separate tariff methodology to promote (in a proportionate and non-discriminatory way) electricity storage at transmission level
  - Exemption of electricity for storage from the federal contribution
- Decentralised (smaller-scaled) storage facilities: regional competencies and regulatory frameworks

## Current Regulatory Status – in Belgium

- Equal treatment between generation and storage?
  - Absence of explicit differentiation in current Electricity Law
  - Existence of objective differentiating elements (e.g. ability under ancillary services for contracted capacity to be able to be activated during prolonged period?)
  - CREG Study 23 April 2015 on electricity storage in Belgium
  - Regulatory implications (permitting?, licensing?, ...) and regional specificities
  - Contractual implications (CIPU 'alike' contract? participation to ancillary services?, ...)

## Developments and Trends – impact of/on other market segments

- Various other energy market segments are developing with impact on energy storage development
- Some examples are:
  - Capacity remuneration mechanisms
    - Energy storage should be integrally part of capacity mechanisms
    - Questions around relationship between storage and (i) generation (ii) flexibility services
    - Recent (good?) exemple: Belgian strategic reserve

## Developments and Trends – Impact of/on other market segments

- Electric charging infrastructure for green vehicles
  - Substantial contribution to future electrification of energy needs
  - Implementation of Directive 2014/94/EU on the deployment of alternative fuels infrastructure
    - Supporting technology-neutral market development of alternative fuels
    - Developing harmonised EU-wide standards and common technical specifications
  - Relevant legal issues include public-private partnership instruments, urban planning regulations, taxation, State aid and competition

## Developments and Trends – Project Development and Contracts

- Some recent projects in Belgium
  - LRM (18 MW)
  - Engie Drogenbos (6MW)
  - Rent-A-Port Energy



## Developments and Trends – Project Development and Contracts

- Revenues for electricity storage may come from
  - Energy and/or availability payments
  - Ancillary services (e.g. frequency response, voltage support)
  - Demand charge reductions
  - If/when applicable
    - Tariff benefits
    - Subsidies

## Developments and Trends – Project Development and Contracts

- Contractual arrangements must include:
  - (i) regulatory developments and perspectives:
    - scrutinising requirements on licensing and regulated contracts
    - price setting taking into account developing tariff methodology and subsidies
    - transmission vs. distribution: different regulatory frameworks and counterparts
  - (ii) site-specific requirements
    - securing, at preliminary stage, land-use and/or real estate rights
    - development and construction: planning and building general and specific conditions
    - operations: permitting on environmental and operational aspects

## Conclusive Remarks

- Various new developments such as the increasing share of intermittent renewables on the grid gear the potential of energy (storage) services
- Regulatory frameworks are under development both at EU and Belgian levels: thus right time for contacts with public and regulatory authorities

## Brussels energy team – contact details



**David Haverbeke**  
Partner

T: +32 2 742 70 13  
M: +32 478 74 15 70  
E: David.Haverbek  
e@fieldfisher.com



**Wouter Vandorpe**  
Of Counsel

T: +32 2 742 70 18  
M: +32 486 80 11 61  
E: Wouter.Vandorpe@fieldfisher.com



**Raf Callaerts**  
Associate

T: +32 2 742 70 83  
M: +32 474 89 74 37  
E: Raf.Callaerts@fieldfisher.com