



Fifth
ENERGY SUMMIT
in Bosnia and Herzegovina



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UNDER THE AUSPICES OF



Ministry of Foreign Trade and
Economic Relations of BiH



State Electricity Regulatory
Commission



Regulatory Commission for
Energy of RS



Regulatory Commission for
Energy in FBiH

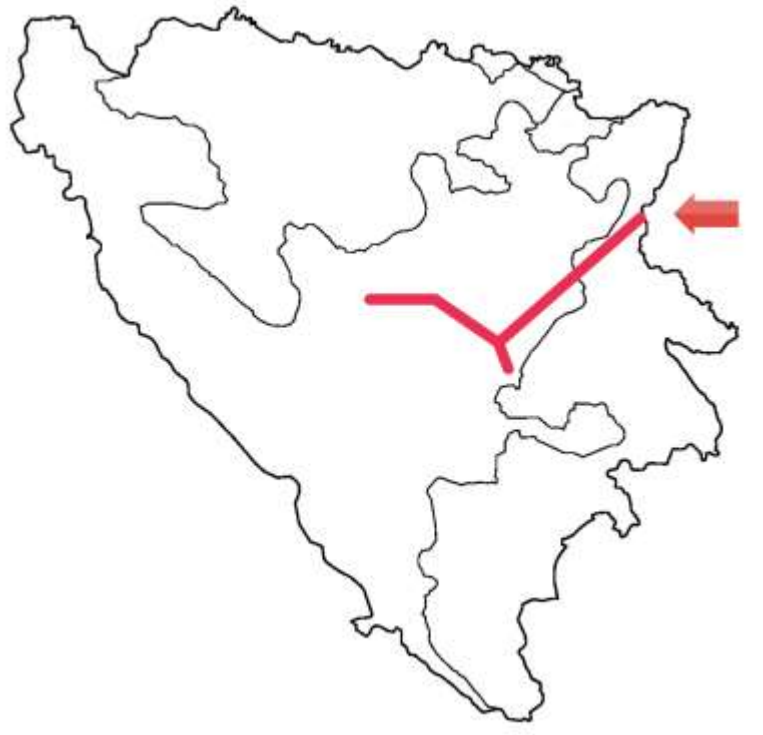
USAID EIA Activities in the Natural Gas Sector

Mak Kamenica

Deputy Chief of Party

USAID Energy Investment Activity - EIA

BiH Natural Gas Sector



- Transmission network length:
256 km (three companies)
- Gas Consumption:
250 million Sm³

USAID EIA Activities in the Natural Gas Sector

- Overview of the regional and BiH natural gas pipeline development projects
- Analysis of the permitting regime for natural gas infrastructure development and recommendations
- Analysis of the primary and secondary natural gas legislation and recommendations

Primary and Secondary Natural Gas Legislation

- Primary legislation (State and Entity Natural Gas Laws)
- Transmission Tariffs
- Revenue/Tariff Tool
- Licenses
- Unbundling
- Price Regulation (Including Revenue Requirements)
- Distribution Tariffs
- Retail Market
- Capacity Allocation and Congestion Management
- System Development

Workshops and Conferences



Thank you for your attention!

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Entry-Exit Model Framework

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Agenda

- Entry-Exit Access Model
 - Unbundling
 - Open access
 - Regulatory framework
 - Entry-exit model
 - Capacity management
- Gas Transmission Pricing
 - Principles
 - Revenue setting
 - Cost Allocation
 - Tariff design

Entry-Exit Access Model

Gas Industry Unbundling

EU Gas Industry Structure

Separation of competitive and monopolistic business areas



Production/Import

Import/Wholesale
competition



Transmission

Distribution

Monopolistic bottleneck
→ needs regulation



Supply

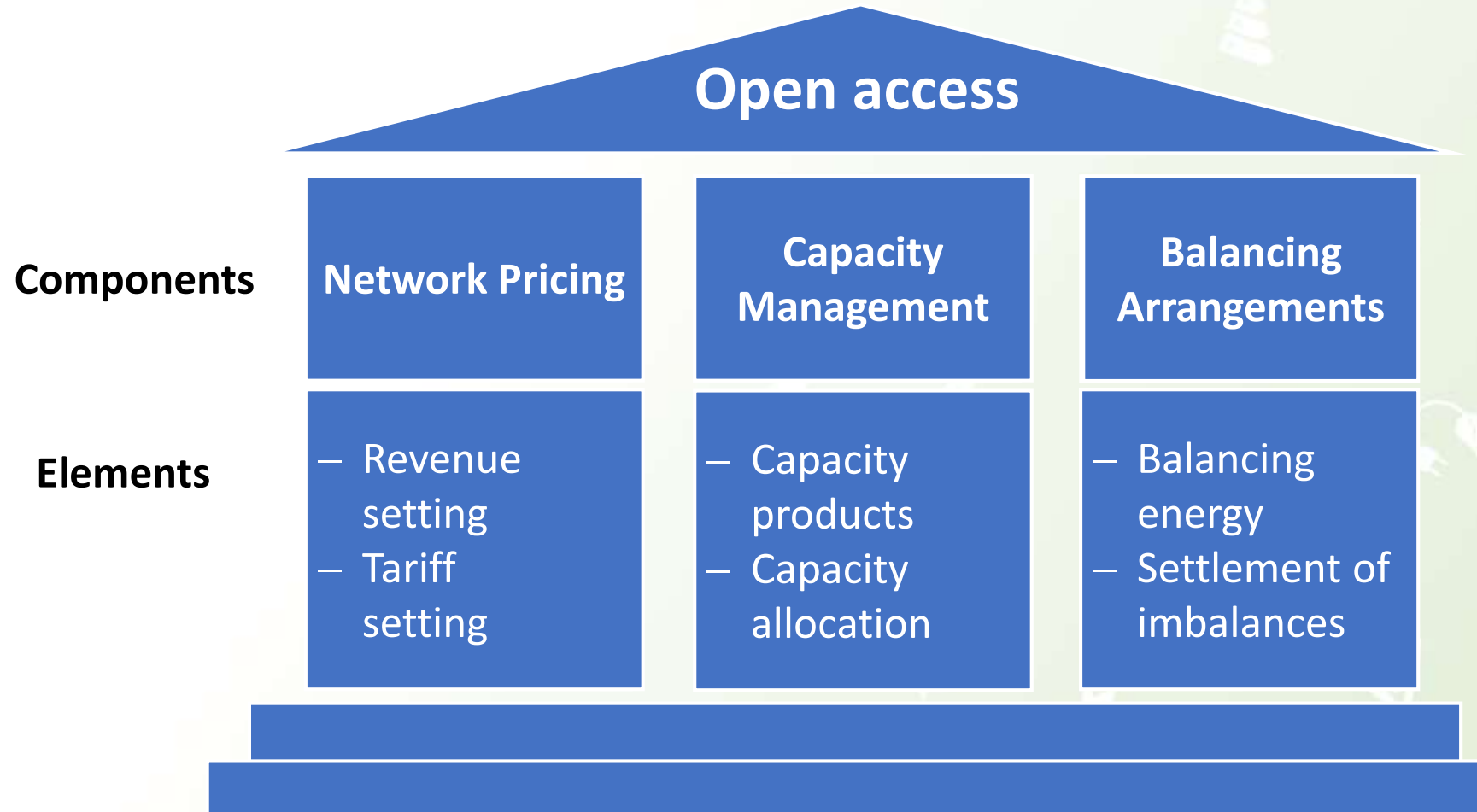
Retail
competition



End-users

- Customers free to choose supplier
- Producers/importers competing with each other
- New supply companies able to enter market procuring gas on wholesale market
- Network considered natural monopoly and regulated
- Access to gas storage and LNG can be regulated or negotiated

Open Access Framework



Regulatory Framework

The gas access regime is set out in several documents (EU Acquis)

Policy Objectives

- Facilitate trade and competition
- Avoid discrimination and cross-subsidies
- Cost reflectivity
- Promote efficient investments
- Transparency

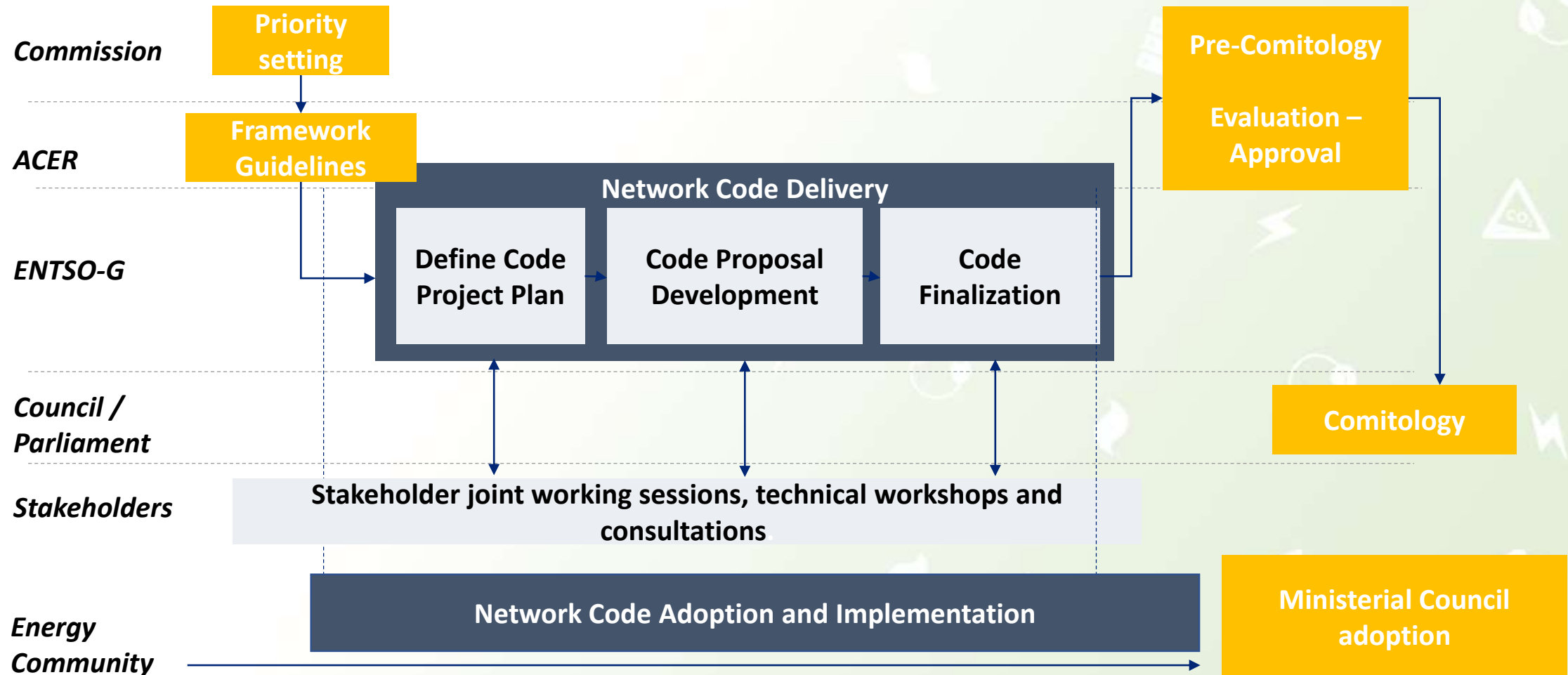
Regulatory Documents

- 3rd Energy Package - 2009
- Network Codes: A set of rules that aims to facilitate the harmonization, integration and efficiency of the European gas market
 - Congestion Management Procedures - 2013
 - Network Code on Interoperability – 2016
 - Network Code on Capacity Allocation Mechanisms - 2015
 - Network Code on Balancing – 2016
 - Network Code on Gas Transmission Tariffs - 2017

Regulatory Framework of EC

EU Legislation	Adoption for Energy Community	General implementation deadline
Directive 2009/73/EC concerning common rules for the internal market in natural gas	Decision 2011/02/MC-EnC	1 January 2015
Regulation (EC) 715/2009 on conditions for access to the natural gas transmission networks	Decision 2018/01/PHLG-EnC Procedural Act 2012/01/PHLG-EnC Decision 2011/02/MC-EnC	1 January 2014 (Annex I 1 October 2018)
Regulation (EU) 703/2015 establishing a network code on interoperability and data exchange rules	Decision 2018/02/PHLG-EnC Secretariat's implementation report	1 October 2018
Regulation (EU) 2017/459 establishing a network code on capacity allocation mechanisms in gas transmission systems	Decision 2018/07/PHLG-EnC Corrigendum Decision 2018/06/PHLG-EnC	Transposition: 28 August 2019 Implementation: 28 February 2020
Regulation (EU) 2017/460 establishing a network code on harmonized transmission tariff structures for gas	Decision 2018/07/PHLG-EnC Corrigendum Decision 2018/06/PHLG-EnC	Transposition: 28 August 2019 Implementation: 28 February 2020
Regulation (EU) 1227/2011 on wholesale energy market integrity and transparency	Decision 2018/07/PHLG-EnC Corrigendum Decision 2018/06/PHLG-EnC	Transposition: 28 August 2019 Implementation: 28 February 2020

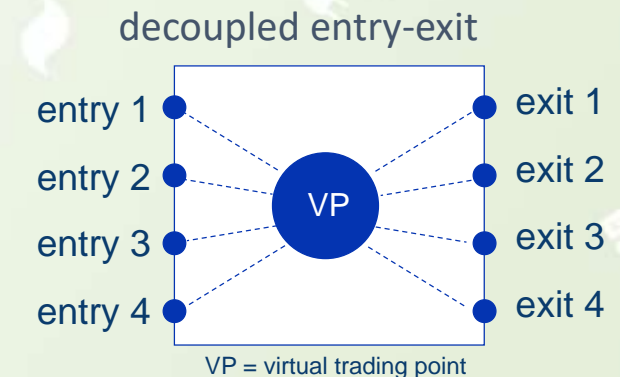
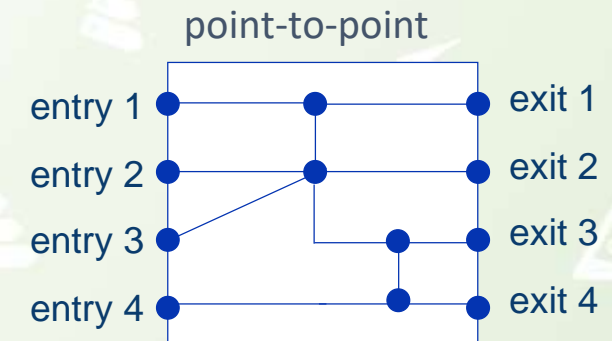
Gas Network Codes



Third Energy package (2009) specifies the mandatory implementation of the entry-exit system

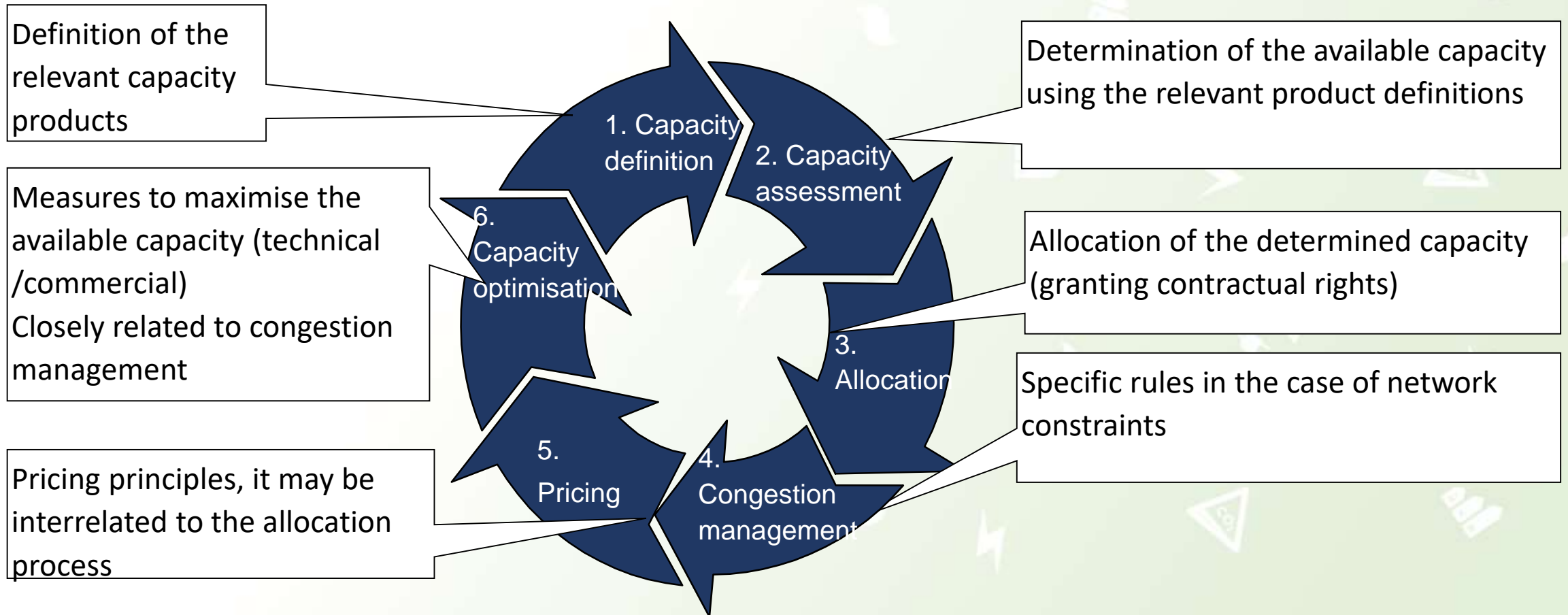
Entry-Exit Model

- The Third Package aims to - among others:
 - Implementation of entry-exit access system
 - Encourage regional cooperation
 - Facilitate cross border trade
- Mandatory implementation of the entry-exit system for network access and pricing:
 - Independent booking of capacity at entry and exit points.
 - No specification of transportation path/distance
 - Virtual trading point facilitating change of ownership of gas
 - Member States which have implemented the entry-exit system, have taken a number of different design choices.



Activities of Network Operator

Capacity Management



Capacity Products

- Risk of interruption
 - Firm capacity: capacity that cannot be reduced
 - Interruptible capacity: capacity that can be reduced to zero
- Coordinated capacity
 - bundled or unbundled products are products consisting of the corresponding entry and exit capacities on both sides of the IP

➤ ***By combining the above mentioned determinants a portfolio of capacity products can be created!***

Capacity products can be varied in terms of firmness, flexibility and duration

- Booking time period
 - Day / Week / Month / Quarter/ Year / > 1 Year
 - May be differentiated by season (e.g. winter and summer month)
- Other possible variations
 - Specific transport portfolios (e.g. backhaul-, shorthaul,)
 - Temperature dependent (as proxy for demand) capacity products

Gas Transmission Tariffs

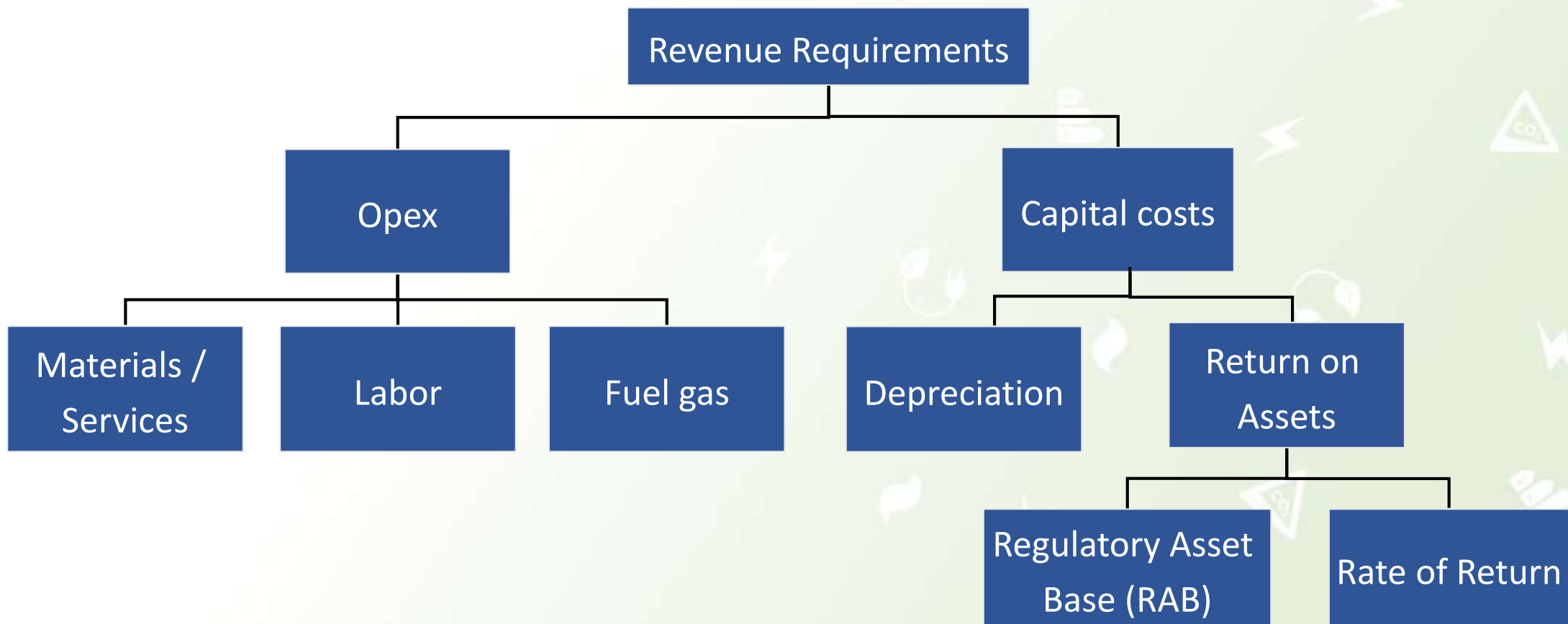
Main Objectives of Gas Transmission Pricing

A good pricing regime should follow several objectives. In practice, the achievement of a functional trade-off between the objectives may be challenging

Objective	Explanation
① Revenue Recovery	Ensure that the TSO can recover the revenue required for the transmission service.
② Economic Efficiency	Pricing design should provide adequate short and long-term signal to the TSO to operate, maintain and expand the network.
③ Efficient Regulation	The pricing methodology should encourage efficient operation, while keeping a manageable regulatory burden.
④ Complexity & Transparency	Highly sophisticated approaches might promote efficiency at first sight, but may appear as a “black box” to network users.
⑤ Non-Discrimination	Level playing field should be created for all users. Users are treated equally irrespective of size, ownership or other factors (e.g. transit vs. domestic).
⑥ Stability & Stakeholder Acceptance	Price changes may result when changing the pricing model. This will have an impact on all stakeholders. Mitigation measures may be required.

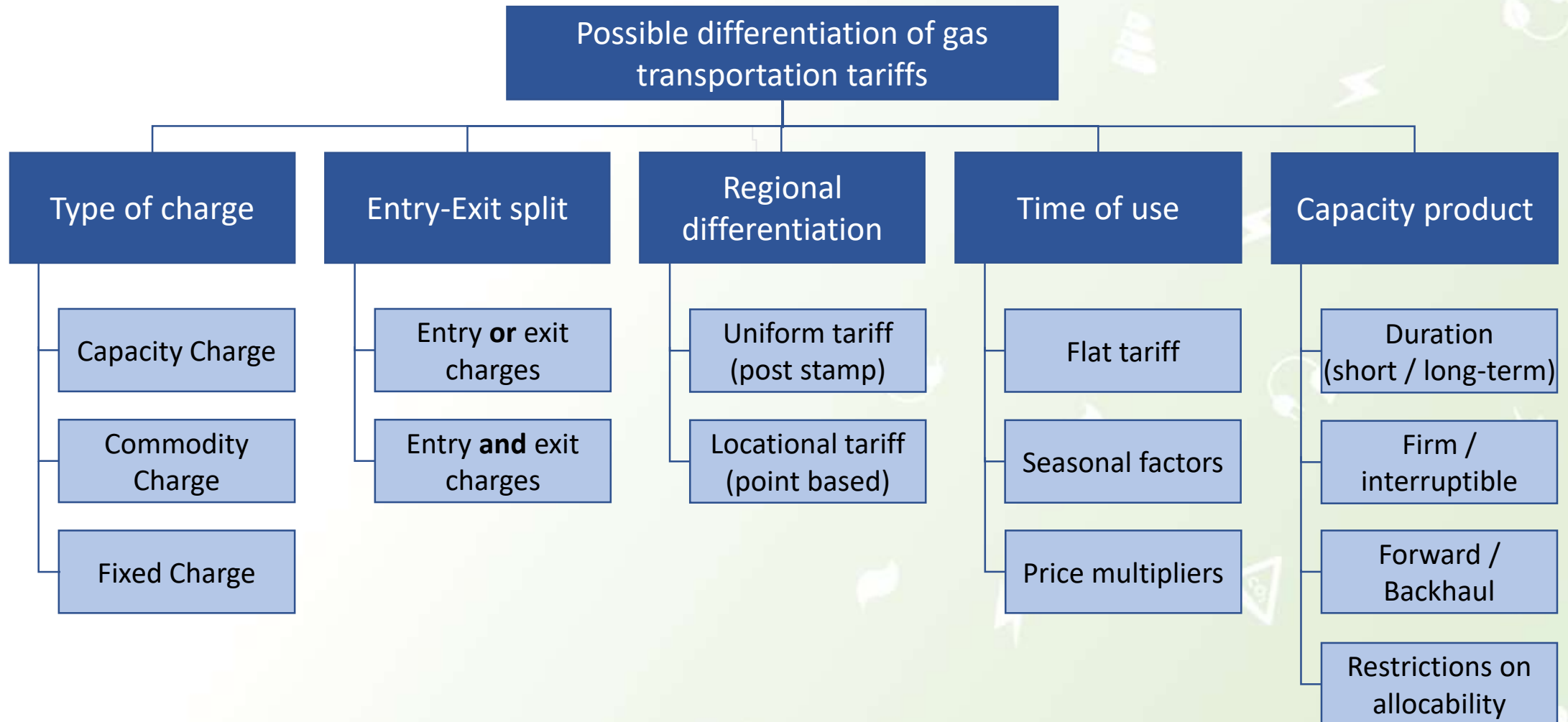
Revenue Setting

The allowed revenue should cover the reasonable operating and capital cost needed for provision of regulated services.



Cost allocation comprises several areas where choices should be made.

Tariff Design Areas



Cost Allocation

There are several methods for the allocation of cost

- Types of Models
 - Postage Stamps
 - Matrix Approach
 - Capacity Weighted Distance Model
 - Distance to Virtual Point
- The models are just different mathematical ways to describe reality and largely aim to achieve the same: fair cost allocation and tariff setting.
- Results may differ due to differences in the algorithms applied and the chosen cost drivers in particular.
- The four models have been included in ACER's Framework Guidelines on Harmonised Transmission Tariff Structures, but subsequently one of them (Capacity Weighted Distance Model) as a reference model in the Tariff Network Code prepared by ENTSOG.

Recommendations

The transmission system of BiH is based on a straight radial configuration with a single entry point

- Implementation of entry-exit system in BiH
- Transparent and easy to comprehend
- Reflect adequately potential system extension (new interconnections)
- Limited administrative burden
- Mid- to long-term outlook of market integration with neighboring countries due to relatively small size of gas system and gas market in BiH
- Reconciliation mechanism to ensure that the TSOs receive their allowed revenues
- Slightly favor the application of the capacity weighted distance cost allocation methodology
- 50:50 split between entry and exit tariffs.
- Combination of capacity and commodity charges, splitting the allowed revenue between capacity and commodity tariff elements, e.g. on a 90:10 basis.
- Annual, quarterly and monthly capacity products, complemented by daily capacity products (later)

Thank you for your attention!

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