ACER
European Union Agency for the Cooperation of Energy Regulators

EUI FLORENCE SCHOOL OF REGULATION

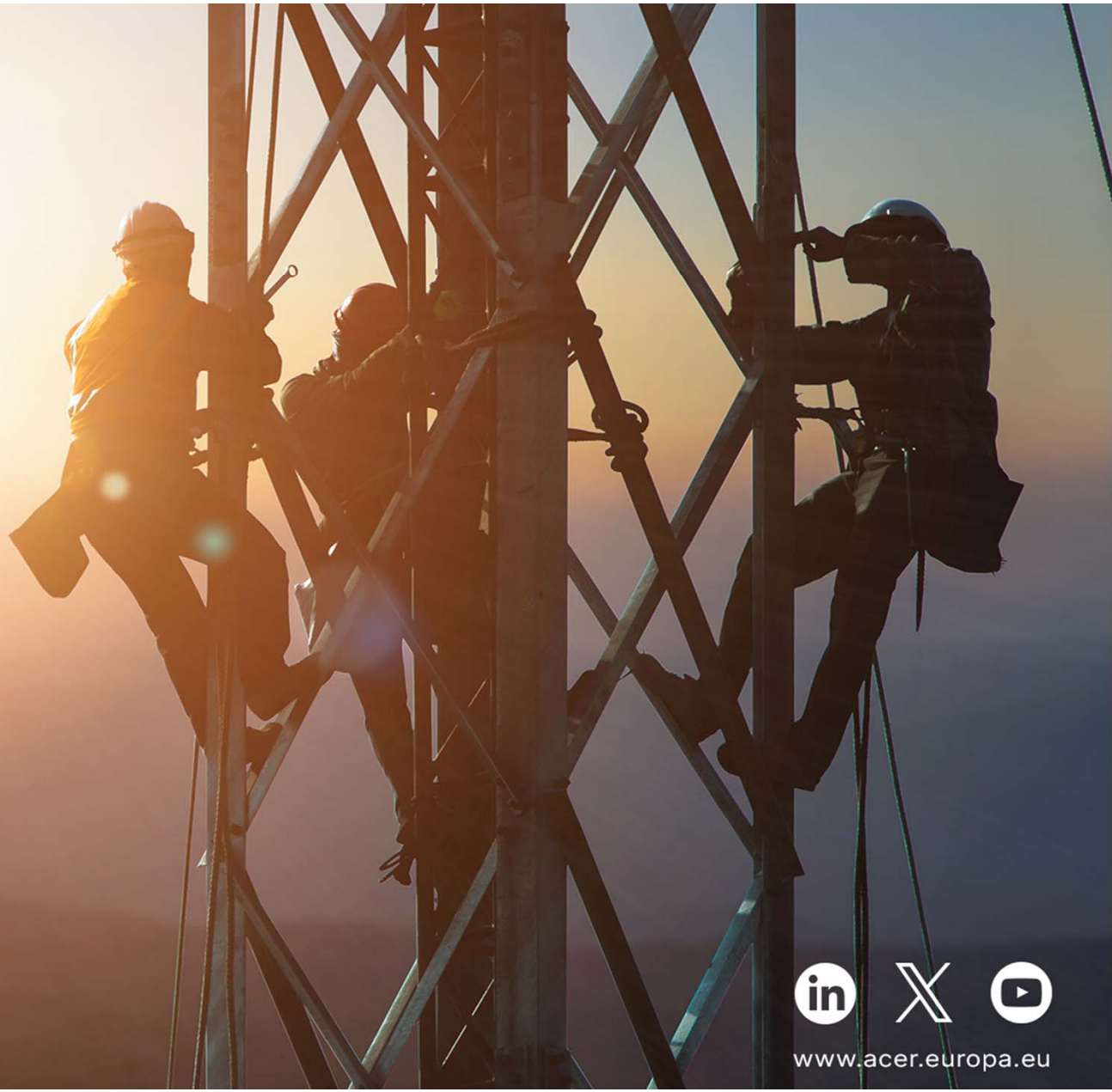
REPORT LAUNCH

Benefit sharing to promote more efficient investments in energy infrastructure

Thursday, 06.06.2024

14:00 - 16:00 CET

Hybrid



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ACER
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Agenda

Time	Item	Speaker
14:00 – 14:05	**Introduction**	Rafael MURUAIS GARCIA, ACER
14:05 – 14:15	**The policy context**	Anca-Iulia CÎMPEANU, DG ENER
14:15 – 14:35	**Presentation of the FSR report**	Nicolò ROSSETTO, FSR
14:35 – 14:45	**Regulatory reflections**	Clara POLETTI, ARERA & ACER BoR Chair (online)
14:45 – 15:25	**Panel discussion**	Jan KOSTEVC, ACER Guro GRØTTERUD, SMARTEN (online) Michaël VAN BOSSUYT, IFIEC Uros SALOBIR, ENTSO-E Alberto POTOTSCHNIG, FSR
15:25 – 15:55	**Q&A**	
15:55 – 16:00	**Closing remarks**	Rafael MURUAIS GARCIA, ACER

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Housekeeping rules

Please pose your questions using the Q&A section

Keep your microphone muted unless the chair gives you the floor

This meeting is being recorded

Slides and recording of this webinar will be uploaded to the ACER website

Substance-related questions will be addressed during the relevant Q&A session; although they can be posed at any point

FLORENCE SCHOOL OF REGULATION

ROBERT SCHUMAN CENTRE

Benefit-based remuneration of efficient infrastructure investments

Presentation of the final report

Nicolò Rossetto and Alberto Pototschnig

Brussels, 6 June 2024

Outline

- Why an additional regulatory scheme?
- The proposed scheme
- Implementation aspects
- Stakeholders' consultation
- A sample case
- Conclusions

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Why an additional regulatory scheme?

- **Grids' expansion** is **essential** to support the energy transition, **but the traditional approach** to it is **hardly adequate**
  - Sheer volume of additional system needs
  - Long authorisation processes
  - Digitalisation and new technologies
- Adoption of TOTEX-based regulation provides only a partial remedy
- An additional regulatory scheme could be useful to:
  - ***Avoid the (high) CAPEX bias*** in addressing system needs
  - Promote the adoption of ***more efficient, innovative (TOTEX-light) solutions*** to address system needs
  - Promote the ***timely deployment*** of the solutions to system needs
- Incentives can be **calibrated on the cost-efficiency** of the solutions to system needs
  - Cost reduction as the benefit to share
- **EU Action Plan for Grids** calling ACER to "*further support NRAs through recommending best practices in the next tariff report*" (Action 8)

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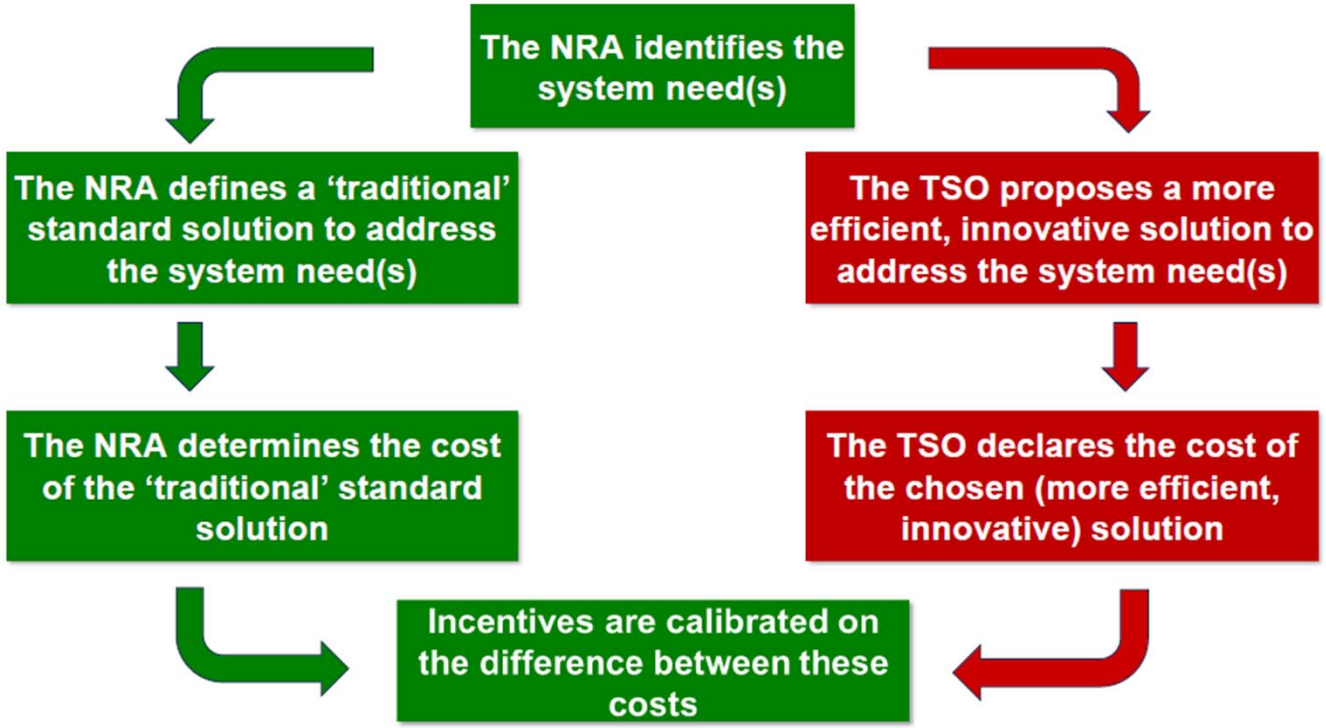
The proposed scheme (1)



NB: the proposed scheme is **NOT** expected to replace all existing regulatory frameworks and incentive schemes

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The proposed scheme (2)

- The TSO receives **allowed revenues** which:
  - **cover the cost** (C) of the chosen more efficient, innovative solution, **as declared in advance** by the TSO and approved by the regulator, up to the cost of the 'traditional' efficient solution
  - also **include an incentive** equal, in net present value (NPV) terms, to a share (α) of the difference, if positive, between:
    - The cost of the 'traditional' efficient solution (C*)
    - The cost of the chosen more efficient innovative solution

Allowed Revenues (in NPV terms) = Min (C, C*) + α Max [(C* - C), 0]

Assuming C < C*:

Allowed Revenues (in NPV terms) = C + α (C* - C)

- **If the deployment** of the chosen solution **is delayed or** the chosen solution **fails to deliver** on the identified system need(s), **the incentive might be reduced** correspondingly or might not be paid at all

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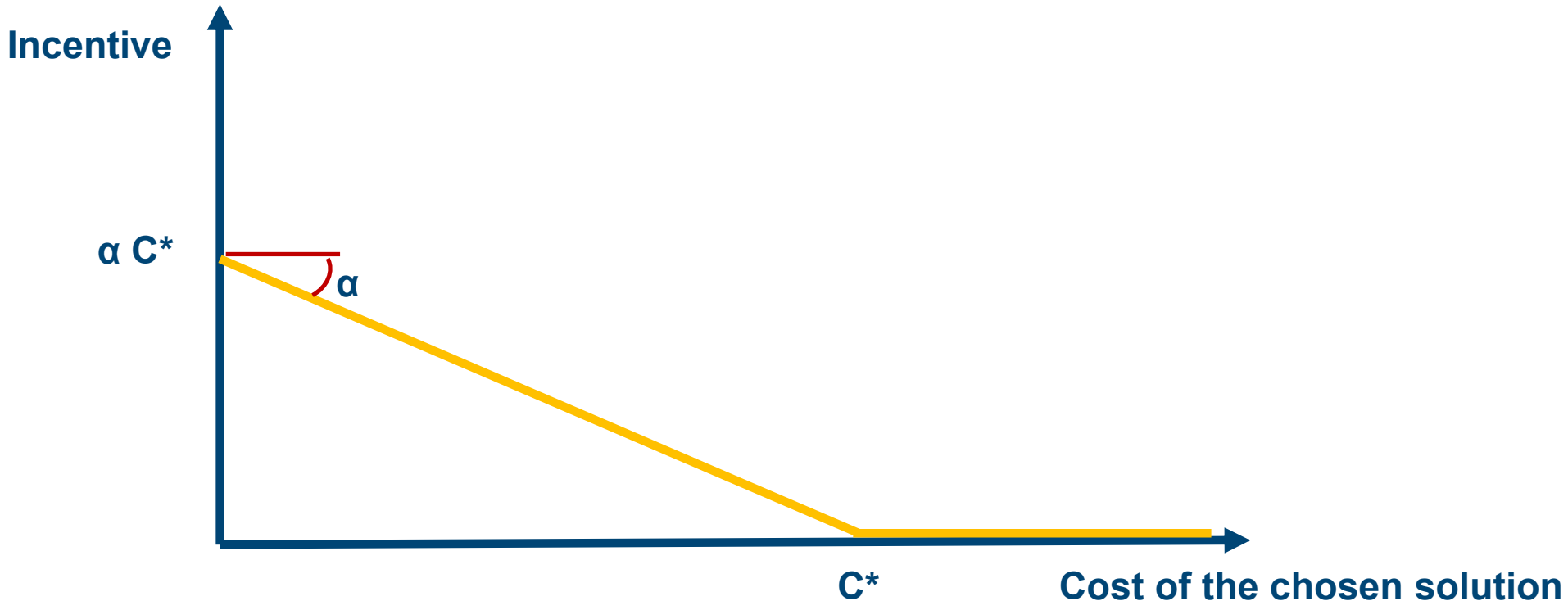
The TSO incentive (in net present value terms)



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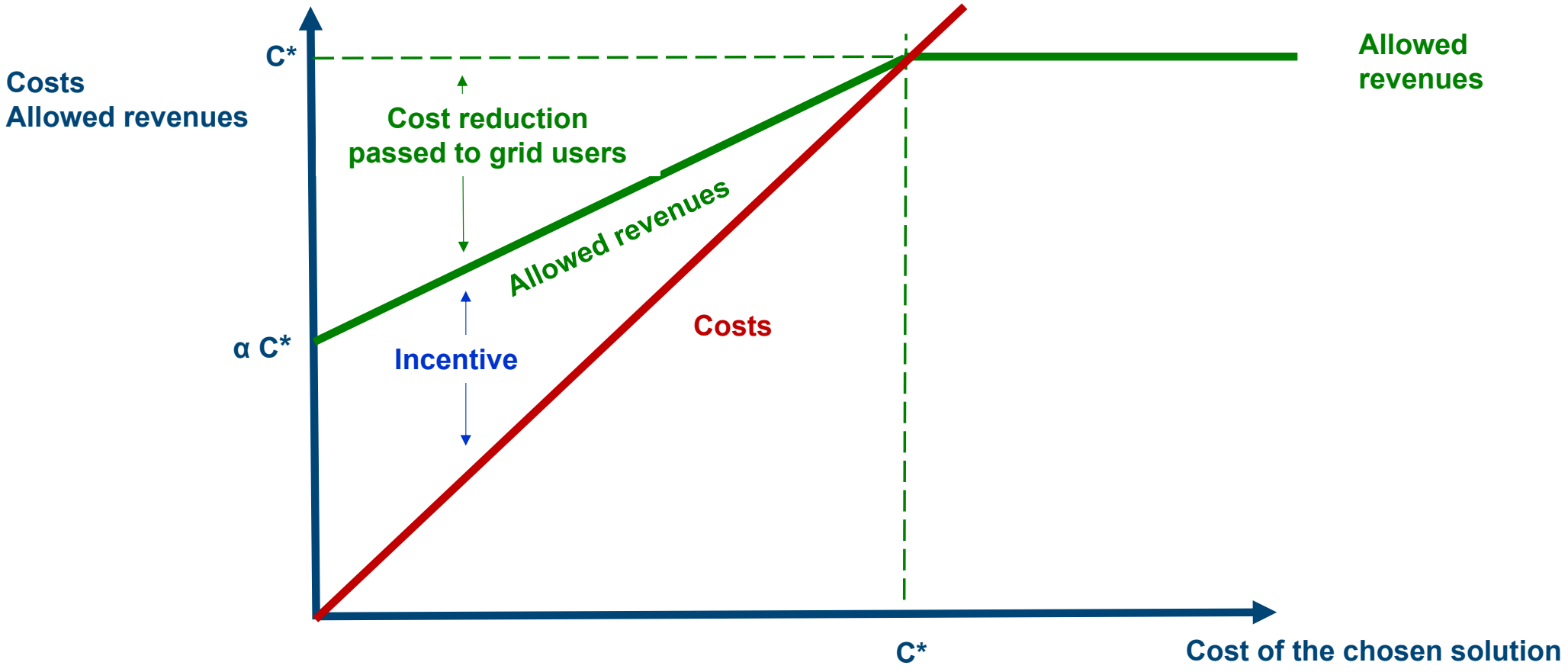
The TSO costs and allowed revenues (in net present value terms)



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Implementation aspects (1)

- The regulator implementing the proposed scheme is required to decide on a number of **design aspects**

Design aspect	**Options and considerations**
Discount rate	At least **three possibilities:** - the **WACC** - the **social rate of time preference** (SRTP) - the (real) discount rate of **4% recommended by ACER** to be used for the CBA of energy infrastructure
Sharing factor (α)	**Trade-off** between: - stronger incentive for the TSO (higher factor) vs - rapidly passing resulting cost reductions to grid users (lower factor) **Fixed vs sliding** factor
Incentive profile (length and shape)	**Trade-off** between: - stronger incentive for the TSO (shorter period) vs - possibility to assess performance (longer period) Possibility to **offer a menu of NPV-equivalent options** to the TSO

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Implementation aspects (2)

- The regulator implementing the proposed scheme is expected to face a number of **challenges,** not so different from those usually experienced in incentive regulation

Challenge	**Considerations**
Identification of system needs	…as should always be in system planning
Determination of a 'traditional' efficient way of addressing system needs **and its cost**	…but experience might help; use of standard unit costs defined by ACER
Assessment the actual cost of the innovative solution chosen by the TSO	…as in the more traditional 'cost-plus' approach; mature but not widely deployed technologies as primary target
Determination of the strength and time profile of the incentive	…as when setting the X and other parameters in the more traditional 'RPI-X' approach
Treatment of uncertainty	Adjustment mechanisms envisaged for cost overruns and other uncertainties due to external factors outside TSO's control

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Stakeholders' consultation

- **NRAs, TSOs and the wider public consulted extensively** on the general features and the implementation aspects of the proposed scheme
- **Good participation** in the consultations
- Feedback used to **validate** the proposal and **fine-tune** it

Respondents to the consultations	
NRAs	14
TSOs/DSOs/energy companies	13
Industry associations	2
Researchers & consultants	8

Consultations	Activities
Consultation on general features	1 workshop with NRAs (23 Oct 2023)
	1 online consultation with NRAs and TSOs (Oct-Nov 2023)
	1 public webinar (24 Nov 2023)
	1 online consultation open to all stakeholders (Nov-Dec 2023)
Consultation on implementation aspects	1 public webinar (15 Feb 2024)
	1 online consultation open to all stakeholders (Feb-March 2024)

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A sample case (1)

Step	Information to acquire/decision to make	Sample case
1	System need(s) to address	**Increase in cross-border capacity** by 600 MW
2	Standard solution to address the identified system need(s)	Construction of a new, 300 km-long, **400 kV overhead line + upgrade of existing substations/transformers**
3	Techno-economic characteristics of the standard solution	**Investment costs: 182 million euro** **O&M costs**: 1.8 million euro/year (**~ 1% of investment costs**) **Useful life: 40+ years**
4	Notional/regulatory life of the infrastructure involved	40 years
5	Extent to which the standard solution delivers the identified system need(s)	100%
6	Revenue requirements to cover the costs of the standard solution	**447 million euro**
7	NPV of the revenue requirements to cover the costs of the standard solution	323 million euro

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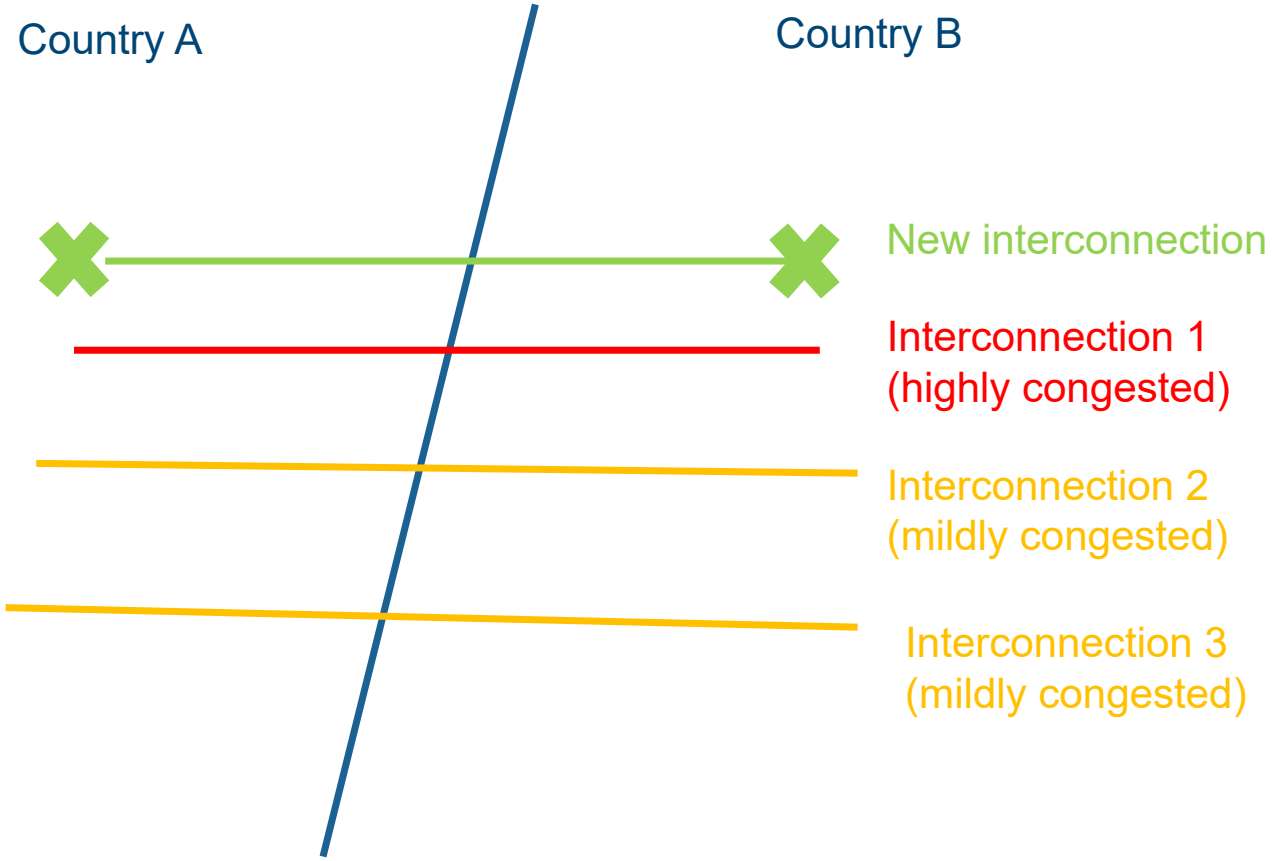
A sample case (2)



A sample case (3)

Step	Information to acquire/decision to make	Sample case
8	More efficient, innovative solution to address the identified system need(s) proposed by the TSO(s)	Deployment of **DLR systems over the three interconnection lines** (total length: 700 km) + deployment of a **PST over the more congested line**
9	Techno-economic characteristics of the identified more efficient, innovative solution	**Investment costs: 58 million euro** (37 in year 1, 7 in year 11, 21 and 31) **O&M costs: 1 million euro/year** **Useful life: 10 years for DLR systems; 40+ years for PST**
10	Notional/regulatory life of the infrastructure involved	5 years for the DLR systems 40 years for PST
11	Extent to which the more efficient, innovative solution delivers the identified system need(s)	**73%** 
12	Revenue requirements to cover costs of the innovative solution	**133 million euro**
13	NPV of the revenue requirements to cover the costs of the innovative solution	95 million euro

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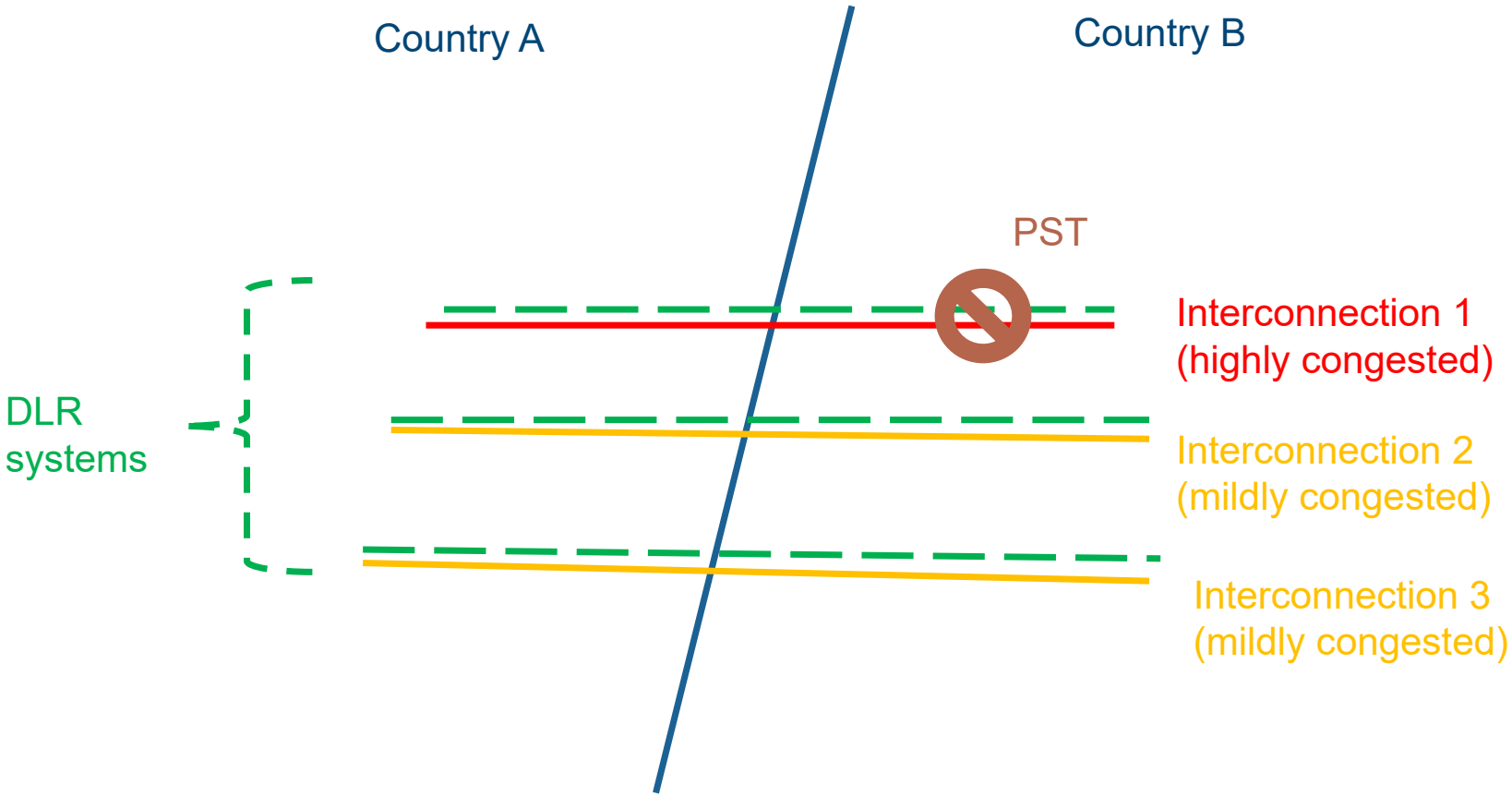
A sample case (4)



A sample case (5)

Step	Information to acquire/decision to make	Sample case
14	Difference between the NPVs of the revenue requirements of the 2 solutions, adjusted for the extent they deliver the identified system need(s)	**193 million euro**
15	Sharing factor	20%
16	Incentive in NPV terms	**38,5 million euro**
17	Determination of the profile of the incentive	Period of incentivisation: 2 years **Yearly incentive: 19,8 million euro**

System savings

Benefit shared with the TSO

Conclusions

- Promoting innovative and efficient approaches to system needs is **imperative** in the context of the accelerated energy transition and recent technological developments
- The proposed scheme represents an **additional tool** that regulators could use **to incentivise TSOs** to look for and **deploy innovative (minimum-cost) solutions** which can save millions of euros in network tariffs
- The implementation of the proposed scheme presents **challenges**, but these do **not** look **very different** from the typical challenges associated with network regulation
- If the problem is a lack of **resources for NRAs**, Member States are likely to benefit from investing more in them and adopting the proposed scheme

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Thank you for your attention

E-mail: nicolo.rossetto@eui.eu

The contents of this document do not necessarily reflect the position or opinion of the Agency.

ACER

European Union Agency for the Cooperation of Energy Regulators

info@acer.europa.eu
acer.europa.eu
@eu_acer
linkedin.com/company/eu-acer