



**Workshop on Regulatory Economic Benchmarking
- October 21-22 in Copenhagen**

Welcome to the International Workshop on Regulatory Economic Benchmarking. We are excited to host this event, bringing together utility regulators, experts, and scholars to explore and discuss the use of economic benchmarking models in assessing tariffs for the regulation of utilities.

First, we want to express our gratitude for everyone's interest.

Second, we are thrilled to announce the program. We are looking forward to a productive and insightful event.

Date and Venue:

- Date: October 21-22, 2024
- Time: Start at 09:00 CET and end at 17:00 CET.
- Venue: Hotel Kong Arthur, Noerre Soegade 11, 1370 Copenhagen, Denmark
- Dinner: Vaekst, Sankt Peders Straede 34, 1453 Copenhagen K

Provisional program

Time	Monday, October 21	Tuesday, October 22
08:30 – 09:00	Check in and registration	
09:00 – 10:30	Welcome address Keynote by Professor Peter Bogetoft	Introduction and Session 4 – Competition and Transition
10:30 – 10:50	Coffee Break	Coffee Break
10:50 – 12:30	Session 1 – Benchmarking, Adaptation and Cost-efficiency	Session 5 – Modelling, Revenue Cap and TSO
12:30 – 14:00	Lunch Break	Lunch Break
14:00 – 15:10	Session 2 – Methods and Robustness	Session 6 – Incentives and Innovation
15:10 – 15:30	Coffee Break	Coffee Break
15:30 – 17:00	Session 3 – Samples, Water and Motorways & day 1 wrap up	Session 7 – Scale, Gas and Issues & closing remarks
18:00 – 20:15	Dinner	

Program in details

Monday, October 21

09:00-09:20 – Welcome address by Danish Competition and Consumer Authority

09:20-10:30 – Keynote

Bridging theory and practice in regulation, Professor Peter Bogetoft from Copenhagen Business School

10:50-12:30 – Session 1 – Benchmarking, Adaptation and Cost-efficiency

Facilitated by Srin Parthasarathy

USING BENCHMARKING IN THE ECONOMIC REGULATION OF THE ELECTRICITY DISTRIBUTION SYSTEM OPERATORS (DSOs) IN NORWAY, Tore Langset (NOR)

AN ADAPTATIVE REGULATION MODEL IN A HETEROGENEOUS CONTEXT, Afonso Sebastião, João Cristóvão (POR)

COST-EFFICIENCY OF ATM IN EUROPE, Nicola Volta (BEL)

Roundtable discussion I: Choice of benchmarking methods

14:00-15:10 – Session 2 – Methods and Robustness

Facilitated by Emil Heesche

APPLIED BENCHMARKING METHODS IN AUSTRIA, Phillipp Trierweiler (AUT)

A REGULATORY PERSPECTIVE FOR ROBUST BENCHMARKING OF UTILITIES, Emil Heesche (DEN)

Roundtable discussion II: Including quality

15:30-17:00 – Session 3 – Samples, Water and Motorways

Facilitated by Mads Frandsen

SMALL SAMPLES IN A FAST-CHANGING ENVIRONMENT: OLD AND NEW CHALLENGES FOR COMPARABILITY AND BENCHMARKING IN THE ENERGY SECTOR, Teresa Romano (GBR)

SETTING WATER AND WASTEWATER EFFICIENT EXPENDITURE ALLOWANCES IN THE 2024 PRICE REVIEW, Daniel Mitchell (GBR)

BENCHMARKING ANALYSIS IN THE TOLLED MOTORWAYS, Carlo Cambini (ITA)

Day 1 wrap up

Tuesday, October 22

09:00-10:30 – Session 4 – Competition and Transition

Facilitated by Emil Heesche

Recap of Day 1 and intro to Day 2

YARDSTICK COMPETITION VS. FRONTIER BENCHMARKING IN ENERGY: INCENTIVES, RISKS AND BIASES, Marcel Vermeulen (NLD)

APPLYING A BENCHMARK DURING THE ENERGY TRANSITION, Enzo de Geus (NLD)

Roundtable discussion III: Regulatory framework

10:50-12:30 – Session 5 – Modelling, Revenue Cap and TSO

Facilitated by Kjartan Rasmussen

MODELLING MULTIPLE OUTPUTS IN PARAMETRIC BENCHMARKING MODELS, Arne Henningsen (DEN), Juan Jose Price Elton (CHL)

BENCHMARKING IN THE DANISH WATER REGULATION, Mads Frandsen (DEN)

BENCHMARKING OF DANISH ELECTRICITY UTILITIES, Kjartan Rasmussen (DEN)

Roundtable discussion IV: Future-oriented investment and maintenance

14:00-15:10 – Session 6 – Incentives and Innovation

Facilitated by TBA

NEW CHALLENGES FOR INCENTIVE REGULATION, Vitor Marques (POR)

DISCUSSION SESSION: HOW TO DEVELOP A MODEL FIT FOR THE ENERGY TRANSITION, Mattias Önnegren, Sebastian Larsson (SWE)

Roundtable discussion V: Incentives and regulation

15:30-17:00 – Session 7 – Scale, Gas and Issues

Facilitated by Mads Frandsen

ECONOMIES OF SCALE IN THE NORDIC ELECTRICITY DISTRIBUTION MARKET, Jonas Månsson (SWE)

LEGAL FRAMEWORK FOR BENCHMARKING EUROPEAN GAS OPERATORS, Miguel Martinez Rodriguez (ESP)

CROSS CUTTING ISSUES, Srin Parthasarathy (GBR)

Closing remarks by Danish Competition and Consumer Authority

Roundtable Discussions

Roundtable discussions will be facilitated by a regulator or an academic.

The following discussion topics and questions are intended for reflection by the participants during the workshop.

Roundtable discussion I: Choice of benchmarking methods

- Which benchmarking methods (e.g. econometrics, DEA, SFA) are best suited for regulation and why?
- What is important when choosing a method
 - Theoretical framework
 - Practical considerations
 - Consensus in the industry (i.e. regulatory precedents) and/or academic literature
 - Resources needed to run/develop the method
 - Complexity of the method / desired level of transparency
 - What are the precautions for the regulators / regulated firms / the consumers?
- Pros and cons of specific methods and how choices are made

Roundtable discussion II: Including quality

- How can a benchmarking model give incentives for an optimal level of quality (i.e. value for money)?
 - What is an optimal level of quality and how can this be determined (e.g. customer-led / regulator-led / based on historical trend)?
 - Should a benchmarking model give incentives for an optimal level of quality or be neutral towards levels of quality?
- How do we measure expected future quality (money spent today increases quality in x years, “lagged effect”) and associated funding requirements?
- What is quality (given there are several dimensions of interest), and does it differ between sectors?

Roundtable discussion III: Regulatory framework

- Which regulatory framework (ex ante, ex post, hybrid) works best when using benchmarking methods
- Pros and cons for specific frameworks (e.g. in incentivising efficiency, investments, flexibility, innovation)
- Should we use efficiency scores directly, determine deadbands/intervals, efficient cost levels, or something else from the benchmarking model in the regulatory framework?
- Which other regulatory elements need to be considered in relation to the benchmarking method?
 - General productivity growth
 - Inflation corrections
 - Financial costs / WACC
 - New tasks / forward looking considerations
 - Consumers’ willingness to pay / quality adjustments
 - Synergies – e.g. energy production from wastewater

Roundtable discussion IV: Future-oriented investment and maintenance

- How can a benchmarking model consider the need for future investments and timely maintenance?
- How can we measure the condition of the assets (current and desired)?

- How to ensure companies deliver the desired outcomes in the future when funding is decided ex ante?
- What are the complications in determining an adaptable regulatory framework that can scale revenue up and down depending on customer needs and circumstances?

Roundtable discussion V: Incentives and regulation

- What are the firms maximizing?
 - Profit maximizing
 - Revenue maximizing
 - Reputation maximizing
 - Innovation maximizing
- Do the firms have incentives for reasonable long-time investments or do they focus on short term gains?
- How does the firm's incentives / strategic choices influence the elements in the benchmarking models?
- How to achieve the right balance of incentives that are best aligned with the immediate regulatory needs?