



# FORUM OF INDIAN REGULATORS

Report on Webinar

with

**Dr. Pradyumna Bhagwat**

**Head of Research - FSR Global, Florence School of Regulation,**

**Italy**

on

**"Electricity Tariffs: Choices & Barriers"**

***1<sup>st</sup> July 2020 (Wednesday)***

**Organized by:**

**FOIR Centre, IICA**



**Indian Institute of  
Corporate Affairs**  
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**Program title:** Webinar with Dr. Pradyumna Bhagwat, Head of Research - FSR Global, Florence School of Regulation, Italy on "Electricity Tariffs: Choices & Barriers".

**Program Date & Time:**

1<sup>st</sup> July 2020 (Wednesday)

12:00 – 1:30pm (IST)

**Mode of Delivery:** Online via Blackboard (LMS)

**Speaker Profile:**

**Dr. Pradyumna Bhagwat**

*Head of Research- Global Initiative, Florence School of Regulation, Italy*

Dr. Pradyumna Bhagwat is an energy policy and regulation expert. He is the Head of Research for the Florence School of Regulation - Global initiative. He has led research projects on wide range of topics such as dynamic tariffs, offshore wind electric vehicles and capacity mechanisms etc. His work has been published in leading academic journals, book chapters, reports and policy briefs.



Dr. Pradyumna received his PhD in November 2016 at the Delft University of Technology jointly with KTH-Royal Institute of Technology, Stockholm and the Universidad Pontificia Comillas, Madrid. He has a European Joint master's in management and Engineering of Environment and Energy (ME3) Program (2011) and a bachelor's in engineering (Mechanical) from the University of Mumbai (2009)

**Participant Profile:** Regulatory officials from FOIR member organizations, Government officials, academicians and others from the field of regulation.

**No. of participants:** 111

**Participant Categorization:**

FOIR Member officials: 44

Academicians: 16

Others (lawyers, CS, students etc.): 16

Last minute logins (Unknown): 36

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## **PROGRAM OUTLINE:**

The School of Competition Law & Market Regulation and Forum of Indian Regulators (FOIR) Centre at Indian Institute of Corporate Affairs (IICA) successfully conducted a webinar with Dr. Pradyumna Bhagwat, Head of Research - FSR Global, Florence School of Regulation, Italy on "Electricity Tariffs: Choices & Barriers" on 1st July 2020 (Wednesday). The webinar with Dr. Pradyumna Bhagwat is the seventh webinar of a weekly webinar series organized by the School of Competition Law & Market Regulation to create awareness on various regulatory concepts, issues and International best practices. The webinar series covers a range of topics from the field of regulatory affairs and market regulation and engages speakers from across the globe including academicians, subject experts and Senior regulatory officials. The participants of the webinar include officials from FOIR member organizations, government officials, academicians and others working in the field of regulation.

## **PROGRAM FLOW:**

The webinar was led by Dr. Pradyumna Bhagwat, Head of Research - FSR Global, Florence School of Regulation, Italy and moderated by Dr. Abha Yadav, Head, School of Competition law & Market regulation & Director, FOIR Centre.

The program initiated with a welcome speech by Dr. Abha Yadav. She introduced the speaker Dr. Pradyumna Bhagwat and threw light on the relevance of the topic in the current scenario. Dr. Yadav further elaborated the format of the webinar to the participants.

Dr. Pradyumna Bhagwat congratulated the School of Competition Law and Market regulation and FOIR Centre, IICA for organizing a series of seminars on varied topics and bringing together regulators from across the country to encourage & enhance knowledge sharing, interaction & discussions among them.

Dr. Bhagwat apprised the participants on the impact of retail tariff on the consumer and shared the consumer's perspective on electricity tariff. The context of the session was

dynamic tariffs for electricity retail at household or small consumer level. He covered several topics such as the components of retail electricity tariffs, rate making principles, taxonomy of Retail tariffs, reasons for applying dynamic tariffs, Integrating rapidly growing non dispatchable RES, DER and EV's, Increase in peak demand, Identifying choices & barriers while introducing dynamic prices, primary design choices, Implementation choices & barriers etc.

He elaborated the top eight rate making principles i.e. equity, efficiency, additivity, simplicity, sustainability, consistency, transparency and stability. The market implications, network implications, solutions and impact of dynamic tariffs of Integrating rapidly growing non dispatchable RES, DER and increase in peak demand were laid out in the session.

Dr. Bhagwat, in his session, shared the tariff design/ structure adopted by many countries such as Europe, US, Japan and many others. He stated that due to different nature of economies across the globe one cannot compare the tariff determination structure of various countries to each other, but the participants may refer to the tariff structure adopted by South Africa and Brazil for a comparing reference to India. Dr. Bhagwat also shared the amount of regulatory intervention that exists in tariff determination in several countries which gave an international perspective to the participants. The major three implementation barriers i.e. Physical & ICT infrastructure requirements, Market arrangement requirements and consumer behavior were also discussed in the session

At the end of the session Dr. Bhagwat shared some Key insights for the regulators and takeaways from the session, which are as stated below:

- Diversity is observed in both the time varying dimensions and in implementation choices.
- Use of ToU is commonly observed and can be considered the first step in applying dynamic tariffs before considering more advanced approaches.
- When dynamic tariffs are introduced, regulatory intervention may be required to protect vulnerable consumers.
- Customers may be given a choice to opt-in /out of dynamic tariffs

- Implementation of retail competition can be an enabler for providing consumers with a variety of options to choose from according to their needs.
- A careful ex-ante cost-benefit analysis of applying dynamic tariffs should be conducted
- Innovative business models and technologies that consider consumer behaviour should be enabled.

He used diagrammatic representation and case-based approach and gave numerous examples to elaborate the tariff determination process and its related aspects. The session was engaging, and energetic participation was seen in the webinar. Questions were taken up from the participants at the end of the session, which led to a healthy discussion.

Dr. Abha Yadav moderated the question-answer round, where a series of questions from participants with respect to countries with efficient tariff determination process, transition of countries in dynamic tariffs, time pricing or dynamic tariff structure, linking RE power for charging EVs and feeding Grid from charged EVs through dynamic tariff, Shadow Billing by Indian utilities, challenges in application of dynamic tariff etc. were raised by the participants from various state electricity regulatory commissions and other participants from the field of regulation, which were effectively answered by Dr. Pradyumna Bhagwat. The participants include several senior regulatory officials from across the country such as Mr. Dinesh Sarraf, Chairperson, PNGRB, Mr. M.K Goel, Chairperson, JERC's, Goa &UT, Mr. Arun Goyal, Member, CERC, Mr. Satpal Garg, Member, PNGRB, Dr. V.K Garg, Former chairperson, JERC's and many other dignitaries.

The participants received great insights on various aspects of dynamic tariffs from the subject-matter expert and gained from his experiences. The participants appreciated the School of Competition Law & Market Regulation and FOIR Centre, IICA for organizing the webinar & appreciated the program's content & speaker.

The webinar ended with a vote of thanks by Dr. Abha Yadav, Head, School of Competition Law and Market Regulations and Director FOIR Centre (IICA)

**Images: Dr. Pradyumna Bhagwat, Head of Research - FSR Global, Florence School of Regulation, Italy addressing the participants during the webinar**

