



**SPECIFIC ECONOMIC AND TECHNICAL
INFORMATION (DATABASE) FOR BENCHMARKING
IN ERRA MEMBERS**

Mladen Petronijevic & Nebojsa Despotovic
Energy Agency of the Republic of Serbia

April 24, 2008
Budapest, Hungary

CONTENTS

I INTRODUCTION

II DATABASE (DATA TEMPLATES)

III DATA COLLECTION PROBLEMS

IV DATA VALIDATION

V PRESENTATION ON FINDINGS

**VI SUGGESTED ACTIVITIES IN THE FUTURE AND
THEIR TIMING**

I INTRODUCTION

- **The basic idea: Create the database with specific economic and technical information that should enable ERRA members to have an insight and access into economic and technical data that can help the regulatory body's examine the justification of price proposals in electricity distribution sector.**
- **The users of database: All ERRA members (regardless of the fact if the methods of incentive regulation (X-factor) are applied or not in their countries).**
- **Caveat: Benchmarking is rather a useful tool than a direct method used by regulatory bodies!**

II DATABASE (DATA TEMPLATES)

- **What to collect: Identification of necessary economic and technical data.**
- **How to collect: Simple template for data collection.**
- **Tariff / Pricing Committee had defined the form and content of data template and after that focused on data collection.**

III DATA COLLECTION PROBLEMS

- **In any benchmarking analyses the benchmark sample and data quality are extremely important.**
- **Completed data templates have been submitted by only 8 ERRA members so far. The size of the sample is too small and does not enable us to make more complex and advanced benchmarking analyses such as OLS, COLS, DEA, SFA and so on. An optimal benchmarking analysis requires minimum 20-25 data templates.**
- **Potential reasons: Data volume necessary to provide, the lack of information about the distribution companies, data confidentiality, other reasons?**
- **Applied benchmarking analysis: Uni - dimensional measures of performance (performance indicators as the simplest measures of performance that can be compared).**

IV/1 DATA VALIDATION

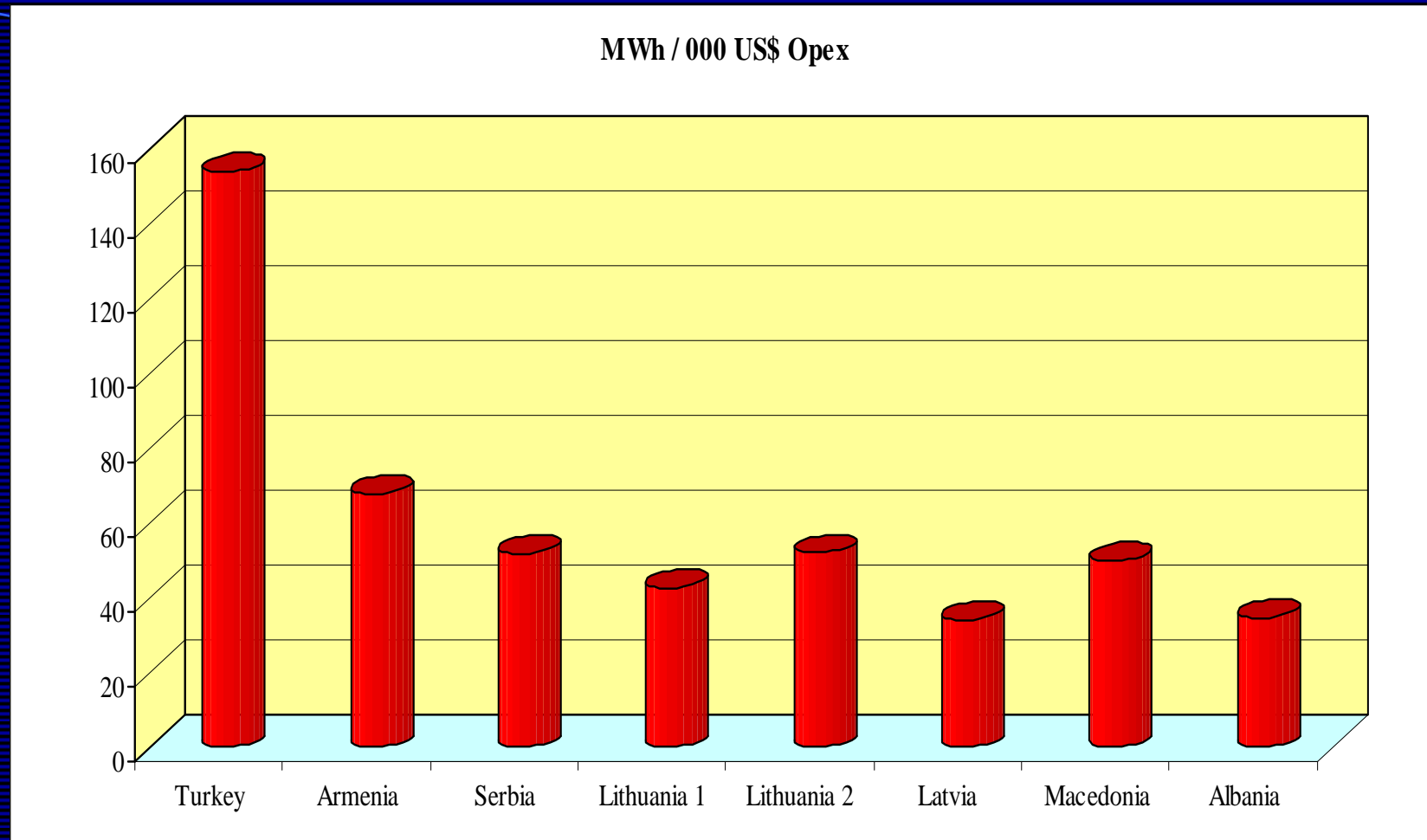
- **Data validation is significantly relevant aspect for benchmarking analyses. The quality of the data to be used in the benchmarking analyses will be reflected in the benchmark results.**
- **Prior to making benchmarking analysis, data control has been carried out, i.e. some simple cross checks and data adjustment have been done.**

IV/2 DATA VALIDATION

Adjusted data (data for 2006 + Albania 2007)

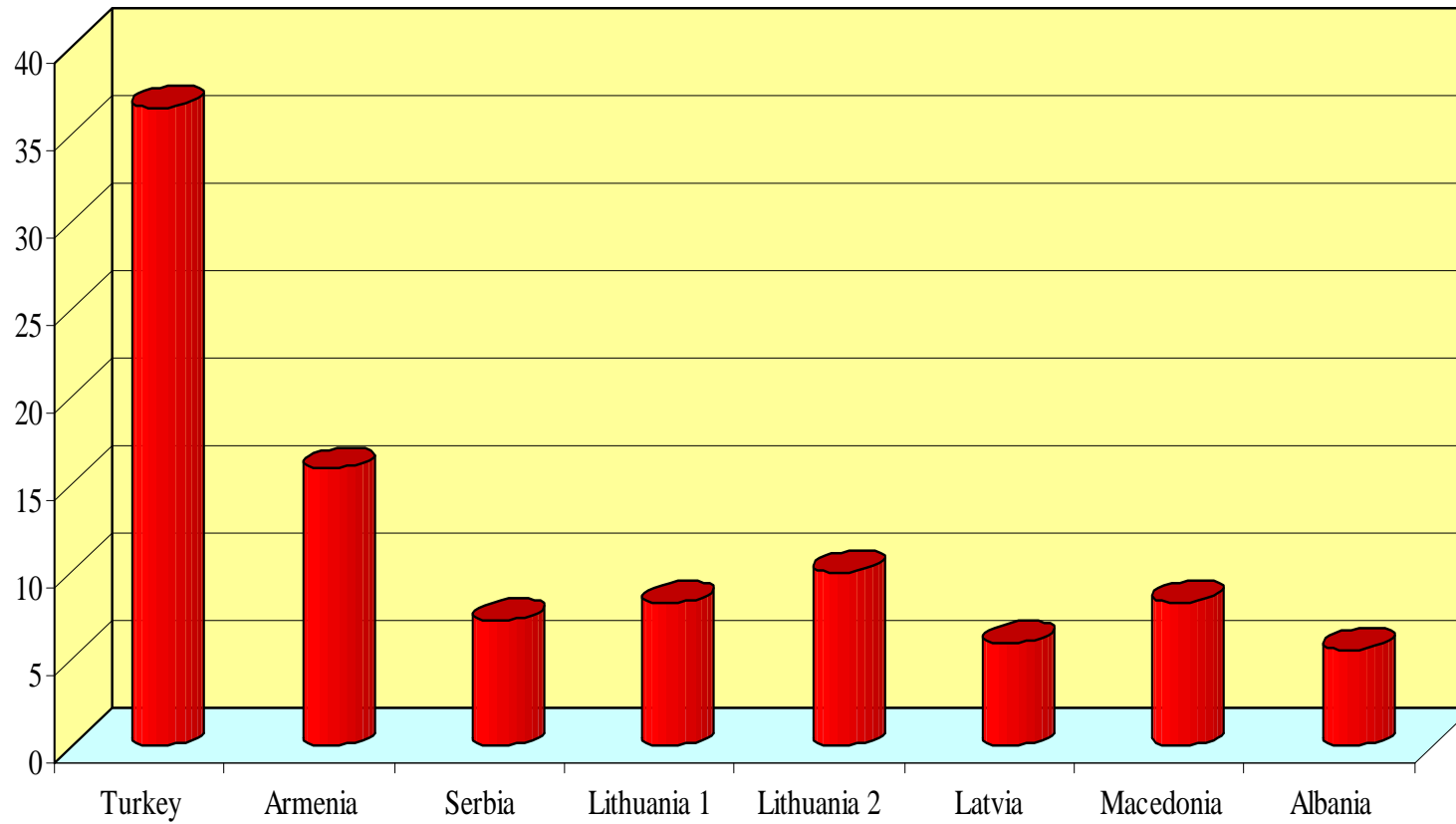
O/N	Country	Served Area (sq. km)	Total length of Lines (km)	Total Electricity Distributed (MWh)	Total number of consumers connected	Employees	O&M Costs (000 US\$)
1	Turkey	770.214	824.737	124.095.298	29.434.543	29.776	805.765
2	Armenia	30.000	29.586	4.309.100	1.006.587	7.719	63.465
3	Serbia	25.211	55.429	6.194.323	855.753	3.113	119.277
4	Lithuania 1	348.000	62.816	3.943.423	757.314	2.005	92.357
5	Lithuania 2	30.378	57.200	3.670.100	702.820	1.746	70.570
6	Latvia	64.600	99.592	6.311.930	1.088.388	3.472	185.047
7	Macedonia	25.456	22.388	4.618.000	765.764	3.720	92.581
8	Albania	28.000	42.768	6.223.000	990.831	6.700	179.132

V/1 PRESENTATION ON FINDINGS

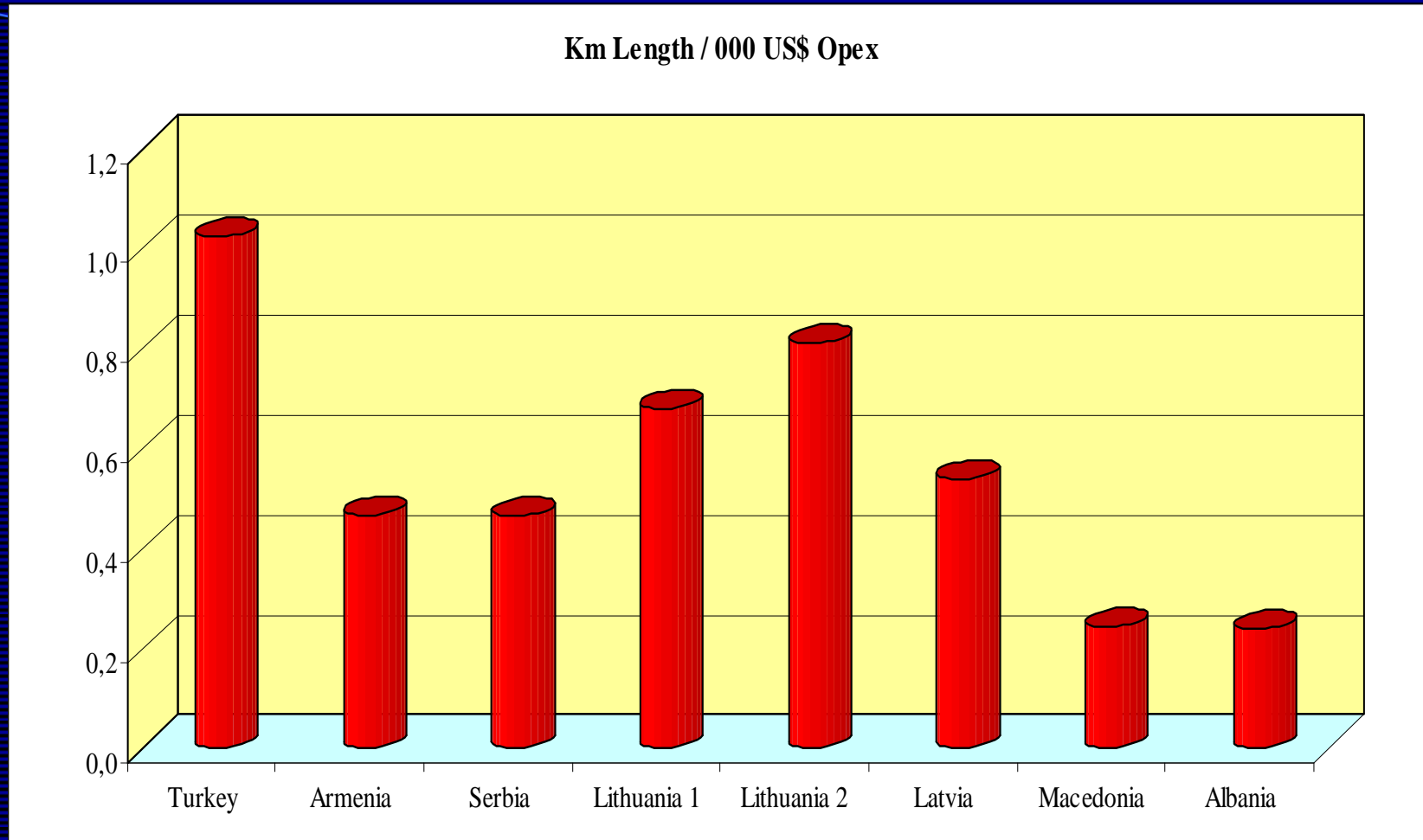


V/2 PRESENTATION ON FINDINGS

Customers / 000 US\$ Opex

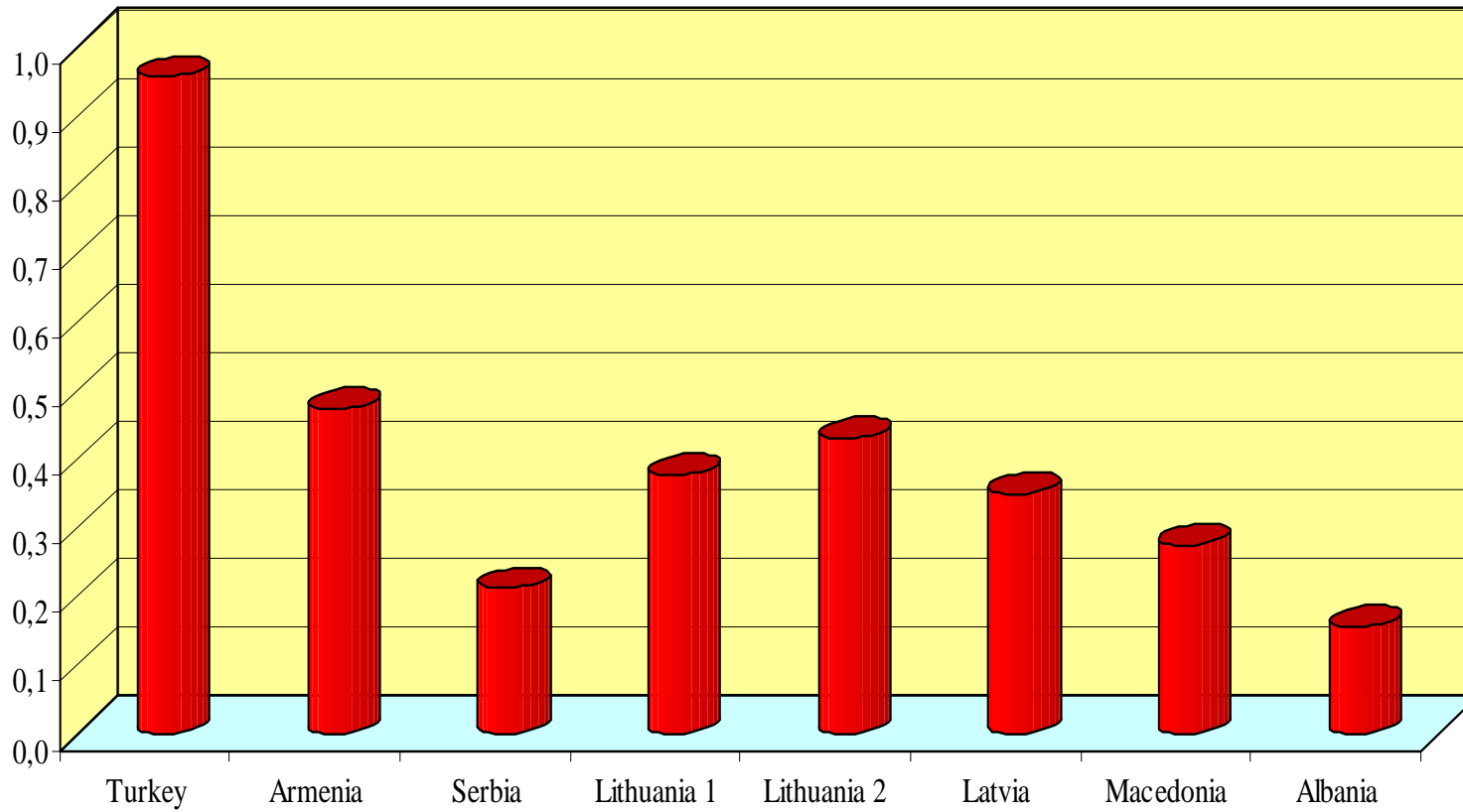


V/3 PRESENTATION ON FINDINGS



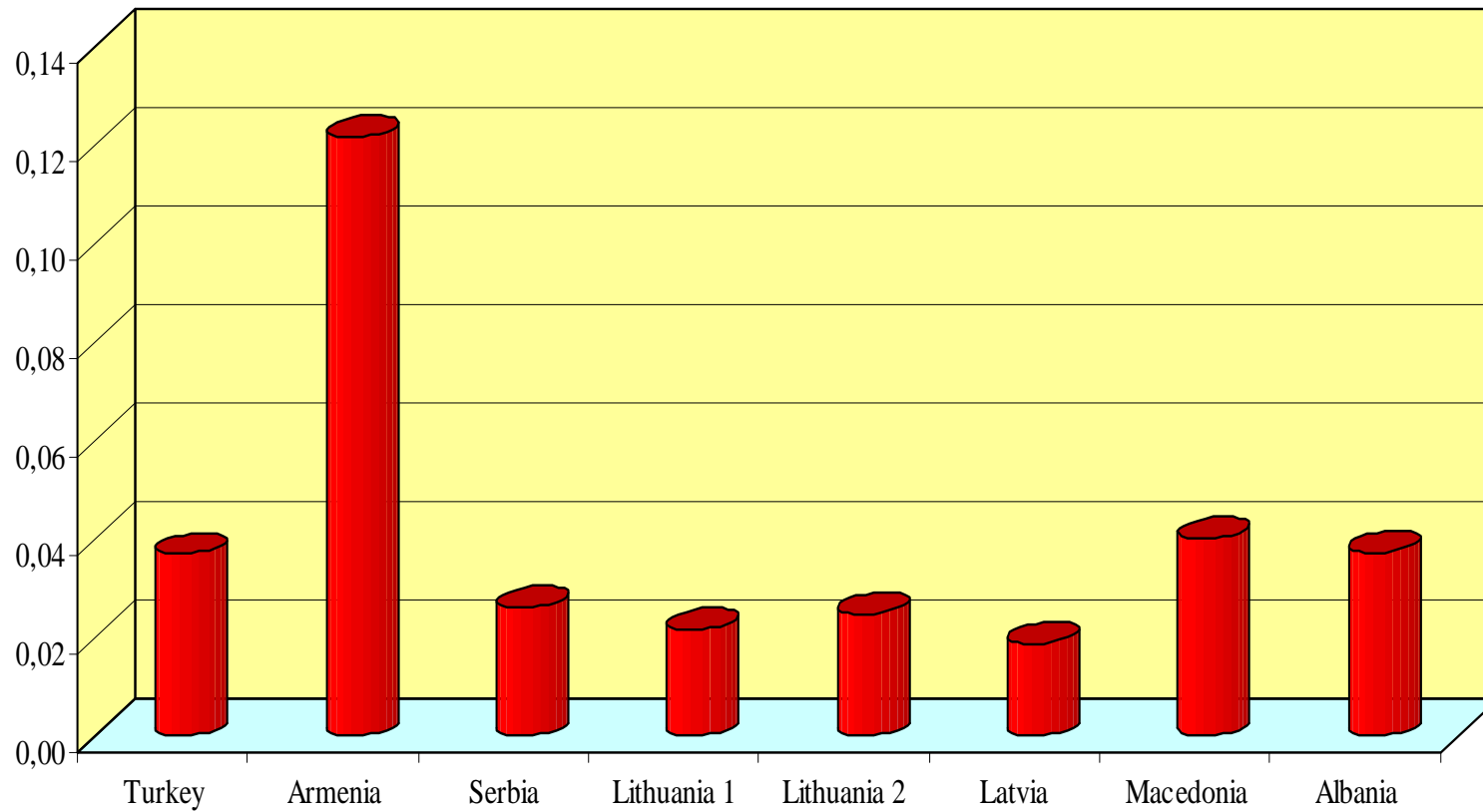
V/4 PRESENTATION ON FINDINGS

Sq. km Area / 000 US\$ Opex



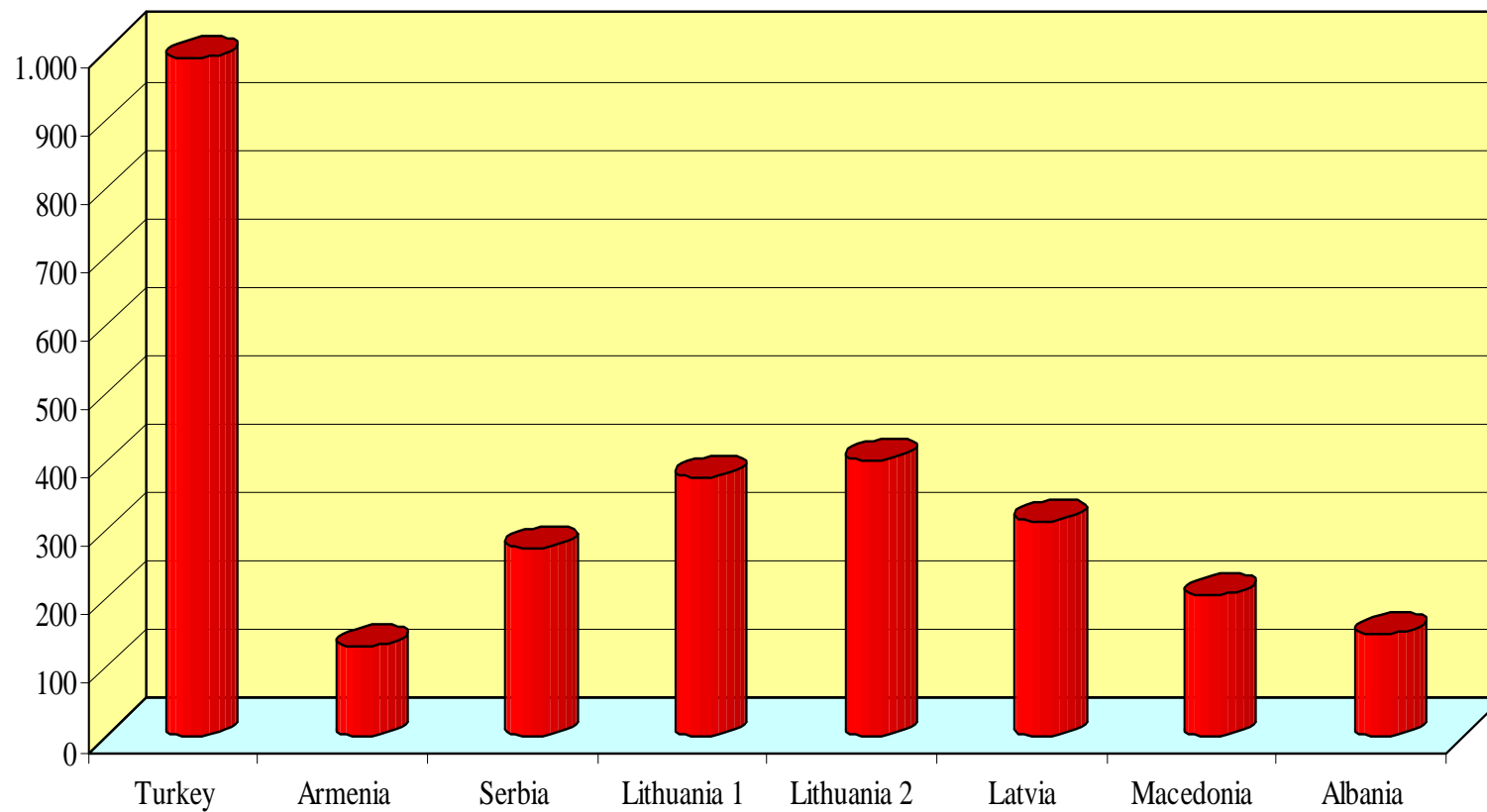
V/5 PRESENTATION ON FINDINGS

Employees / 000 US\$ Opex



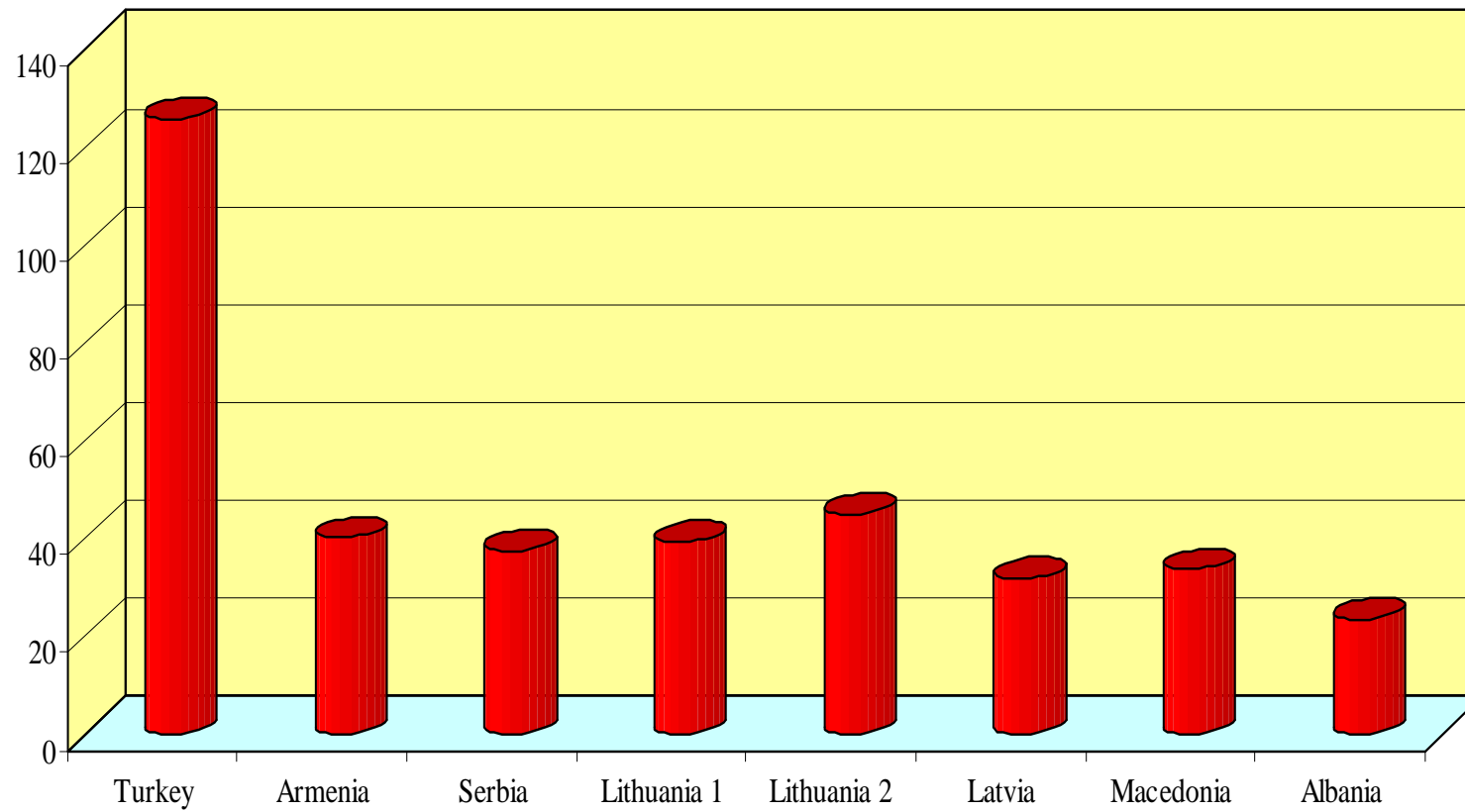
V/6 PRESENTATION ON FINDINGS

Customers / Employee



V/7 PRESENTATION ON FINDINGS

Total Weighted Rank



VI SUGGESTED ACTIVITIES IN THE FUTURE AND THEIR TIMING

- **Proceed with data collection in order to provide big enough data templates, as well as providing conditions necessary for devising the advanced benchmarking techniques such as OLS, COLS, DEA, SFA and whose results are going to be presented at next Tariff / Pricing Committee Meeting. It is possible to decrease the volume of necessary data only to 2006 and 2007, including only 1-3 representative distribution companies.**
- **If Tariff / Pricing Committee concludes that results of this topic are applicable and useful, the database can be updated with new data every year, which might become the permanent activity of Tariff / Pricing Committee, as well as Tariff Database.**

THANK YOU FOR YOUR ATTENTION

Energy Agency of the Republic of Serbia

www.aers.org.yu