

## Datasheet of the IKTA4/091 project

### I. Framework for the modelling and simulation of energy markets

Project start: January 7, 2002, duration: 23 months.

Amount of support: KHUF 47 300, total project cost: KHUF 95 200.

Project leader: **Csapodi Márton Dr.**

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Project URL: <<http://www.egroup.hu>>

### II. Consortium members (number of members = 7, the first member is the project co-ordinator)

<i>no</i>	<i>name</i>	<i>support</i>	<i>total cost</i>
1.	E-Group Hungary Plc.	KHUF 20 100	KHUF 40 200
2.	DYNAdat Ltd.	KHUF 14 700	KHUF 29 400
3.	Budapest University of Economic Sciences and Public Administration, Department of Microeconomics	KHUF 4 000	KHUF 8 000
4.	Budapest University of Technology and Economics, Dept. of Electric Power Systems	KHUF 3 950	KHUF 7 900
5.	Budapest Polytechnic, Kandó Kálmán Faculty of Electrical Engineering, Power Engineering Dept.	KHUF 500	KHUF 1 000
6.	Hungarian Energy Office	KHUF 4 050	KHUF 8 100
7.	Antal Tombor	KHUF 0	KHUF 600

### III. Public presentations

No presentation is available.

### IV. Goals of the project

Energy market deregulation brings new opportunities along with new challenges to energy market players worldwide. As competition rises, companies increasingly require market modeling abilities to understand supply and demand, and the interactions driving energy prices. This ability is needed to organize, regulate and operate energy markets, as well.

Today, having no appropriate tools, preparation for changes due to deregulation, and for trading under liberalized market conditions can be done primarily by studying operational markets in the EU and US. However, no two countries have the same market regulation, or similar physical network. Therefore, deduction from foreign cases to the future operation of Hungarian network and energy market is hard. The consequences of a few bad market regulation schemes in the past (e.g., Californian market) draws the attention to the need for tools which enable analysis of energy market operation. This need raises primarily amongst market players who must study the economic impact of their decisions (e.g., capacity expansion), and evaluate momentary market opportunities.

Project scope:

- Unified formal representation of energy market players' behavior (power plants, suppliers, consumers, tradesmen), enabling extensive scalability and their simulation under different physical constraints and market configurations.
- Formulation of market configuration models, compatible with formal models of the players, enabling parametric specification of market rules.

- Formulation of power transmission system models of the actual Hungarian power system, its environment and conceivable capacity expansions/changes. In the project we focus on electric power markets, similar models can be developed for the gas market in the future.
- Development of a system based on the above models describing network, market configurations and players, which will be applicable to simulate and study complex, dynamic market scenarios. Besides enabling theoretic studying of energy market deregulation, the software can be used to train the players in liberalized energy markets as well.

## V. Project results (in case of finished projects)

The project is not finished.

## VI. Data on consortium members (number of members = 7)

### 1. *E-Group Hungary Plc.* (co-ordinator)

URL: <<http://www.egroup.hu>>

Support for the co-ordinator: KHUF 20 100, and its total cost: KHUF 40 200.

Contract number: .

Team leader: **Csapodi Márton Dr.**

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### 2. *DYNAdata Ltd.*

URL: <<http://www.dynadata.hu>>

Support for the consortium member: KHUF 14 700, and its total cost: KHUF 29 400.

Contract number: .

Team leader: **Kádár Péter Dr.**

DYNAdata Kft.

H-1115 Budapest, Bártfai u. 54.

<[http://???kadar@dynadata.hu](mailto:???kadar@dynadata.hu)>, phone: +36 (1) 463-0833

### 3. *Budapest University of Economic Sciences and Public Administration, Department of Microeconomics*

URL: <<http://www.bkae.hu>>

Support for the consortium member: KHUF 4 000, and its total cost: KHUF 8 000.

Contract number: .

Team leader: **Trautmann László Dr.**

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### 4. *Budapest University of Technology and Economics, Dept. of Electric Power Systems*

URL: <<http://www.vmt.bme.hu>>

Support for the consortium member: KHUF 3 950, and its total cost: KHUF 7 900.

Contract number: .

Team leader: **Varjú György Dr.**

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**5. Budapest Polytechnic, Kandó Kálmán Faculty of Electrical Engineering, Power Engineering Dept.**

URL: <<http://www.kando.hu>>

Support for the consortium member: KHUF 500, and its total cost: KHUF 1 000.

Contract number: .

Team leader: **Morva György Dr.**

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**6. Hungarian Energy Office**

URL: <<http://www.eh.gov.hu>>

Support for the consortium member: KHUF 4 050, and its total cost: KHUF 8 100.

Contract number: .

Team leader: **Sugár András Dr.**

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**7. Antal Tombor**

URL: <<http://www.centrel.org/tombor.html>>

Support for the consortium member: KHUF 0, and its total cost: KHUF 600.

Contract number: .

Team leader: **Tombor Antal Dr.**

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