Principles
of railway network access charging in Poland
Present
access charging system
Legal background of the present access charging system

Principles of establishing unit rates:
- Act of 27 June 1997 on railway transport
- Decree of Ministry of Transport and Maritime Economy of 12 August 1998 on detailed principles and conditions for providing traffic operations on railway lines

Principles of establishing charges (increasing, reducing):
- Act of 28 March 2003 on railway transport
- Decree of Ministry of Infrastructure of 7 April 2004 on access and usage conditions for railway infrastructure
The general aim of charging system is:

- to cover the total and justified IM’s costs connected with the process of making infrastructure available to the users
General assumptions for access charging system

Access charges to railway infrastructure should cover:
1. Maintenance costs
2. Traffic operation costs
3. IM’s administration costs connected with making railway infrastructure available
4. IM’s investment expenditures on managed lines
5. Additional IM’s costs - connected with costs of extraordinary journeys and security service being provided in the railway area as well as in the trains
Funding principles for railway transport in Poland

According to the Act of 28 March 2003 on railway transport, the following issues are financed from the national budget:

- Investments resulting from international agreements
- Investments, repairs, exploitation and maintenance of railway lines with purely military significance
- Preparation and realisation costs of investments related to railway lines of national importance

The tasks mentioned above may be also financed by the means of infrastructure manager, local governments, as well as from other sources.

*IM’s operating activities are not being financed by government at all.*
Responsibile bodies

**The Minister specific for transport issues:**
- determines in the decree the principles of railway network charging and the announcing procedure

**The President of the Railway Transport Office (UTK):**
- supervises the correctness of the basic charges for using railway infrastructure and additional charges for additional services
- approves unit rates of access charges

**Infrastructure Manager (PLK):**
- defines access charges and publishes the list of approved unit rates
Unit rate of basic access charge

Unit rate of basic access charge is calculated for single train journey on the distance equal to one kilometre [PLN / 1 train kilometre]
Basic calculation rules for unit rates

Unit rates of basic charges for using infrastructure are determined for individual line sections and depend on historical costs and on level of operating performance on each section.

For freight traffic the unit rate includes the total gross load of train.
### Average unit rates for basic services in 2005 (according to PLK Price List)

<table>
<thead>
<tr>
<th>Type of traffic</th>
<th>Train type</th>
<th>Unit rate in 2005 [PLN /train km]</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Passenger traffic</strong></td>
<td>Qualified: IC, EC, EN, E</td>
<td>13,06</td>
</tr>
<tr>
<td></td>
<td>Inter-Regional</td>
<td>10,81</td>
</tr>
<tr>
<td></td>
<td>Regional</td>
<td>7,18</td>
</tr>
<tr>
<td></td>
<td>Rail-bus</td>
<td>2,63</td>
</tr>
<tr>
<td></td>
<td>Passenger altogether:</td>
<td>8,95</td>
</tr>
<tr>
<td><strong>Freight traffic</strong></td>
<td>Block trains</td>
<td>25,75</td>
</tr>
<tr>
<td></td>
<td>Main line trains</td>
<td>22,68</td>
</tr>
<tr>
<td></td>
<td>Shunting trains</td>
<td>14,62</td>
</tr>
<tr>
<td></td>
<td>Local trains</td>
<td>24,17</td>
</tr>
<tr>
<td></td>
<td>Altogether freight</td>
<td>23,50</td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td>Service trains, light engines</td>
<td>3,77</td>
</tr>
<tr>
<td><strong>Overall average unit</strong></td>
<td></td>
<td>12,55</td>
</tr>
</tbody>
</table>
Value of coefficient that takes into consideration total gross load of freight trains

<table>
<thead>
<tr>
<th>Lp.</th>
<th>Total gross load of train ( m ) [t]</th>
<th>Coefficient value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(&lt; 800)</td>
<td>0.80</td>
</tr>
<tr>
<td>2</td>
<td>(800 &lt; m \leq 1000)</td>
<td>0.90</td>
</tr>
<tr>
<td>3</td>
<td>(1000 &lt; m \leq 1200)</td>
<td>1.00</td>
</tr>
<tr>
<td>4</td>
<td>(1200 &lt; m \leq 1500)</td>
<td>1.10</td>
</tr>
<tr>
<td>5</td>
<td>(&gt; 1500)</td>
<td>1.20</td>
</tr>
</tbody>
</table>

The value of coefficient equals 1 for passenger trains.
Stages of basic charge calculation

1. Defining type of train (j) and its total gross load (m)

2. Describing train route – line section (n) and its length $l_n$

3. Choosing correct unit rates $s_{nj}$ for given line section (n) and type of train (j) from price list

4. Calculating total basic charge $S$ for given train using mathematical formula
Formula for calculating total basic charge

\[ S = \left[ \sum (s_{nj} \cdot l_n) \cdot \alpha_{mj} \right] \cdot z_j \]

- **S** – total basic charge
- **S_{nj}** – unit rate for defined type of train (j) and given line section (n)
- **l_n** – length of line section
- **\alpha_{mj}** – coefficient that depends on total gross load (m) of a given train (j)
- **z_j** – profit (max. 5%) presumed for defined type of train (j)
Charges types according to Network Statement

Complete charge for infrastructure access includes:

1. Basic charge for journey executed according to allocated train paths
2. Additional charge for additional services
3. Initial charge for:
   – Annual Timetable updating
   – Individual Timetable preparation
   – changing of train path parameters already applied
Basic charge

Basic charge is executed as:

1. Reservation charge - defined in the CONTRACT adequately to scale of planned performance for the given month, generally amounts 100%

2. Realisation charge – determined for real utilisation of railway lines after final financial settlement of infrastructure usage
Average unit rates for the whole network

**IM can apply average unit rates** for railway undertaking, that:

- Fulfills conditions established in Network Statement on regularly performed journeys
- Can prove (in tariff or price list) that planned journeys would be executed not only taking into account commercial interest
Reducing of basic services charges

**IM can apply time limited reducing of charges,**
if IM can prove its ability to obtain substantiated saving resulting from railway traffic organisation improvement or implementation of new technological solutions. e.g.:

- for RU that runs 3 identical trains within period of 24 hours PLK can decrease rates up to 20%
Increase of basic services charge

**Basic charge can be increased for:**

1. Journeys performed with the individual timetable – 20%
2. Short term planning (6-hour-available-route) – 15%
3. Hazardous goods transport – 60%
4. Exceptional goods transport in compliance with Network Statement
   Cumulative increase cannot be higher then 200%
Additional charges

**Additional charge** is collected for additional services according to individual contracts or commissions, e.g.:

- IM’s special activity connected with exceptional or hazardous transport
- Providing extra information about the train route including statistical data
- Preparing the Timetable Study
- Enabling journeys with individual timetable or on the 6-hour-available-route base
- Other - in compliance with NETWORK STATEMENT
Disadvantages of current charging system

- Current system is based on the unit rate estimated on the costs carried by IM in the previous year.
- Unit rate is related to railway section load and historical costs and does not comply with standard of available railway line.
- High rate in the freight traffic is the barrier for freight traffic development and its competitiveness with road traffic.
New charging system for 2005/2006
Legal basis for new infrastructure access charging system

- Act of 28 March 2003 on railway transport
- Decree of Ministry of Infrastructure of 7 April 2004 on access and usage conditions for railway infrastructure
General aims of changes in charging system

- Reduction of unit rates for basic charges
- Encouraging freight RU to use underloaded lines
- IM stimulation to better railway lines maintenance by combining the unit rates of access charge with quality of technical parameters of railway lines
Assumptions of new charging system

- Charging system based on the planned costs within the timetable period
- Unit rate related to the max. technical speed on the particular railway sections – as a parameter dependent from the IM
- Unit rate for qualified trains related to timetable speed – as a parameter dependent from RU
- Unit rate for passenger trains other then qualified trains and freight trains related to the total gross weight - as a parameter dependent from RU
Thank you for your attention