ERTMS

development

in Poland

April 2012
- ERTMS projects ongoing in Poland
- ERTMS projects planned in Poland
- ERTMS in Poland foreseen for 2015
ERTMS/ETCS level 1 on CMK line Grodzisk Mazowiecki – Zawiercie 1/3

Scope of contract:

• Design and build of ETCS level 1
• Interfaces to signalling system
  (interlocking, block, LX protection)
• Tests
• Certification and commissioning
Why ERTMS/ETCS level 1?

• v>160 km/h requires cab signalling system (ERTMS/ETCS is the only legacy one in EC)

• keeping existing signalling (interlockings and block systems) excludes level 2

In case of this line it is important to enable Railway Undertakings to use modern rolling stock as soon as possible and to operate trains at speed over 160 km/h.
ERTMS/ETCS on CMK line cooperation between RU and IM:

- PKP PLK S.A. will ensure ERTMS/ETCS Level 1 track-side equipment for PKP Intercity S.A. vehicles equipped with ETCS on-board for final tests and commissioning.

- PKP Intercity S.A. will ensure vehicles equipped with ETCS on-board unit for final test and commissioning of ERTMS/ETCS Level 1 track-side subsystem installed on CMK line.
ERTMS level 2 on Corridor F
Legnica – Węgliniec – Bielawa Dolna 1/3

Scope of contract:

• Part A – ERTMS/ETCS level 2
  track-side equipment:
  design, installation and commissioning

• Part B – ERTMS/ETCS and ERTMS/GSM-R
  on-board equipment:
  design, installation and commissioning
  ETCS level 2 and GSM-R and external STM

• Part C – ERTMS/GSM-R
  fixed and mobile terminals:
  design, delivery and installation
Supplier has completed the pre-work documents which has been accepted:

- Inventory of existing state together with the acquisition of the current technical documentation to the extent necessary for the development of projects
- The concept of location and installation of the ERTMS / ETCS level 2 in the line of the pilot / preliminary draft of the installation
- Proposal of operation rules under ERTMS/ETCS level 2
- Operational scenarios
- Test cases
Works to be done:

- design ETCS and GSM-R on-board equipment;
- technical documentation for construction of the on-board equipment for particular types of locos (EU07/EP07, ET22, EN57 and SU46) with the construction and commissioning of on-board equipment for 8 vehicles;
- design and prototype external STM;
- constructing documentation and installation of external STM module on four vehicles.
Scope of contract:

- two Mobile Switching Centres MSC (Warsaw, Poznan)
  voice and data communication (CSD, GPRS) and SMS services;

- Base Station Subsystem BSS
  Base Station Controller BSC (Wroclaw) and Base Transceiver Stations BTS’s on 84 kms

The main scope of the BSS is to provide radio coverage required for ETCS level 2 (voice and data communication).
Project will be implemented in three stages:

- **Stage 1** – design, deliver, build, installation of ERTMS/GSM-R network on E 30 railway line and training of PLK personnel
- **Stage 2** – GSM-R functional tests
- **Stage 3** – ERTMS functional tests operation and maintenance testing interface GSM-R/ETCS
- ERTMS projects ongoing in Poland

- ERTMS projects planned in Poland

- ERTMS in Poland foreseen for 2015
ERTMS/ETCS on Corridor F
Kunowice – Poznań – Warszawa

Progress of the project:

- TEN-T co-financing ensured
- tender documentation – in preparation
- expected date of implementation: December 2014

Scope of the project:

- design, installation, build and put in service ERTMS/ETCS level 1 with infill
ERTMS/ETCS and ERTMS/GSM-R
Warszawa – Gdańsk – Gdynia

Progress of the project:
- expected implementation: June 2015

Scope of the project:
- design, build and put in service remote control systems in 8 Local Control Centres
- design, build and put in service ERTMS/ETCS level 2
- design, build and put in service ERTMS/GSM-R
Progress of the project:
- tender announcement: 06.03.2012
- expected implementation: 2013-2015

Scope of the project:
- design, installation, build and put in service ERTMS/ETCS level 2
- design, installation, build and put in service GSM-R
ERTMS/ETCS and ERTMS/GSM-R
Warszawa – Łódź

Progress of the project:
• tender documentation – in preparation
• application for funding – in preparation
• expected implementation: 2012-2014

Scope of the project:
• design, build and put in service ERTMS/ETCS level 2 with RBCs located in Local Control Centres Grodzisk Mazowiecki, Skierniewice, Koluszki
• design, build and put in service ERTMS/GSM-R
- ERTMS projects ongoing in Poland
- ERTMS projects planned in Poland
- ERTMS in Poland foreseen for 2015
ERTMS/ETCS ongoing and planned projects
ERTMS/GSM-R ongoing and planned projects
THANK YOU FOR ATTENTION