



TRACECA Investment Forum
Brussels, 28th February 2012

ID: AZR1

TRACECA PROJECT FICHE

AZERBAIJAN RAIL TRADE AND TRANSPORT FACILITATION PROJECT

1. OBJECTIVES

The project is expected to support the development of services by enabling the railway to attract growing transit business to Azerbaijan. While such services remain related to the regional oil industry, they provide Azerbaijan with an opportunity to capitalise on its location by offering value added services for oil and oil products from neighbouring countries. This will benefit not only the railway, but also other logistics businesses (port services, storage) that provide services for transit goods.

The long term vision is for Azerbaijan to become a prosperous transit centre for energy and goods flowing between Europe and Central Asia. The project will also contribute towards improving quality and transparency in public sector governance by improving the governance and transparency of a major state-owned enterprise. It will reduce accidents and environmental hazards by improving track conditions on Azerbaijan Railways' (ADY) main line and through upgrades to ADY's oil spill prevention and response capabilities.

1.1 OVERALL OBJECTIVES

Overall objectives include: (i) to satisfy the increasing demand from the population and the economy in railway transportation services; (ii) to satisfy the security demands of the state; (iii) to increase the transit potential of the country; (iv) to improve the quality of railway services; (v) to support social and economical development of the country by decreasing the costs of passengers and cargo transportation while (vi) progressively attaining financial self-sustainability for freight services.

1.2 PROJECT OBJECTIVES

The main project objective is to improve railway services in Azerbaijan. This includes, competitiveness, financial sustainability, operating and cost efficiency, and the overall capacity of the ADY, particularly along the transport corridor towards Georgia (East-West corridor).

2. DESCRIPTION

The project will support the implementation of the first phase of the Government Program which covers components that are most time-sensitive and will most rapidly generate cash flow. The project will focus on: (i) maintaining and increasing the railway business (increase revenue from US\$219 million today to about US\$283 million by 2015) by providing the profitable freight market segment with proper service, infrastructure and locomotive capacity; (ii) transforming Azeri Railways into a financially self-sustainable operation in freight transportation by covering all its costs (including infrastructure maintenance and traction) from revenues, while improving its operational efficiency; and (iii) improving the transparency of the railway sector by introducing International Financial Reporting Standards (IFRS) and profit centres (passenger/freight) and by separating on an accounting basis the passenger services that could be self-sustained from others.



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The project total cost is estimated at US\$795 million (US\$674 million plus US\$121 million of Value Added Tax), with US\$450 million of World Bank funding, including the capitalised front-end fee of 0.25 percent (US\$1 million). Project costs include the renewal of critical assets (track, locomotives and power supply) and implementation of IFRS accounting system and technical services to support the restructuring. The components are shown below.

- Component 1: (total cost with contingencies – US\$440 million). The Rehabilitation of the East-West Mainline component would include track, signalling and power supply rehabilitation along the East-West corridor. It would rehabilitate about 317km of mainline track currently in poor condition. The investment would remove the most critical speed restrictions and allow ADY to handle existing and potential traffic at up to 100 km/hour for passenger trains and 80 km/hour for freight trains without significant track delays on those 317km. It would finance the conversion of the power supply on the East-West corridor to 27,5kV as well as new power stations, catenary and the related upgrade in signalling equipment. This component includes the technical services required to design and supervise the above investments.
- Component 2: (total cost with contingencies – US\$334 million). The New Mainline Locomotives component would finance about 40 new mainline electric locomotives to operate on the East-West corridor.
- Component 3: (total cost with contingencies – US\$17 million). The Modernisation component would include: (i) support for the full implementation of IFRS accounting; (ii) provision of Advisory services to ADY to implement its modernisation program and; (iii) provision of equipment to ADY to improve its oil spill prevention and response capacity.
- Component 4: (total cost without contingencies – US\$3 million). The Project Implementation component would provide training and consultant services to the Project Implementation Unit (PIU) for procurement, financial management, financial audit and monitoring as well as on the equipment required for project implementation.

2.1 ACTIVITIES

The activities for each project component are briefed below:

- Component 1: Rehabilitation of East-West Mainline

Track Renewal

- Rehabilitation of about 240km of track on the East-West mainline will be financed by the Government of Azerbaijan. This is a subset of a Government program which aims to improve 317km of mainline track. On June 21, 2010, the Ministry of Transport agreed to €215 million for Czech Export Credit and the Ministry of Finance signed an associated guarantee agreement to carry out the track rehabilitation. ADY has signed a contract with Moravia Steel Project a.s. for the work which will be carried out over a three-year period. Bureau Veritas has been appointed as the supervision consultant. The track renewal work will be undertaken by Azerdemiryoiservice LLC of ADY CJSC.
- Rehabilitation work started in June, 2011 and to date the ADY CJSC has renewed 10km of track on the Aghstafa-Tatli section of the Baku-Boyuk-Kesik corridor. Completion of 317km of rehabilitated track is expected by the end of 2014.

Electrification

- The tender was started in May, 2010. The final PQ Evaluation Report was approved on January 22, 2011. Invitation letters to successful Bidders and regret



letters to unsuccessful Bidders were sent on January 28, 2011. The ADY together with its Consultant has prepared the draft bidding documents for procurement of Plant Design, Supply and Installation of 25kV system including substations, power supply and catenary. In early October, 2011 the ADY submitted these to the World Bank for "no objection". Signing of the contract with the awarded Contractor is expected by February, 2012. Completion of the construction/installation work is expected by the end of 2015.

Signalling

- The ADY together with its Consultant is continuing its work on preparation of the draft report for signalling. The submission is expected in October, 2011.

- Component 2: Locomotives

Mainline Locomotives

- The tender was started in December, 2010. Bidding was conducted through the two-stage international competitive bidding procedures as specified in the World Bank's Guidelines: Procurement under IBRD Loans and IDA Credits (current edition) and is open to all eligible bidders as defined in the guidelines. The ADY together with its Consultant has prepared the draft bidding documents for procurement of 40 new electric locomotives and has submitted these to the World Bank for "no objection" in early October, 2011. Signing of the contract with the awarded Contractor is expected by January, 2012. Completion of delivery of locomotives is expected by the end of 2016.

- Component 3: Modernisation

Technical assistance to ADY for project services related to power supply conversion, signaling upgrading along the Baku-Boyuk-Kesik corridor and procurement of electric locomotives

- The tender started in June, 2009. On September 3, 2010 contract No. AZRTTFP-S3-QCBS-2010-LS entitled "Technical Assistance to ADY for project services related to power supply conversion, signalling upgrading along Baku-Boyuk-Kesik corridor, and procurement of electric locomotives (Assignment)" was signed. This contract operates with KELS Consortium and is a Joint Venture consisting of the following entities, each of which will be jointly and severally liable to the Client for all of the Consultant's obligations under this Contract, namely: "Sibgiprotrans" JSC, Kaspi-Ell LLC, Kwang Myung Electric Co. Ltd., "EMH Electro Mechanic Service Ltd", "Niiefa Energo" LLC, "Energoatomengineering" CJSC and "Lenpromtransproekt" JSC. The Contract will end on August, 2013.

Implementation IFRS Accounting System for ADY

- The tender started in January, 2010. On December 6, 2010 contract No. AZRTTFP-S4-QCBS-2010 entitled "Implementing an IFRS Accounting System for Azerbaijan Railways CJSC" with G&G YÖNETİM DANIŞMANLIĞI VE TİCARET LTD ŞTİ. (G&G Consulting Ltd) was signed. The contract will end on March, 2012.

Technical Assistance to ADY for Oil Spill Preparedness

- The tender started in January, 2010. Contract No. AZ RTTFP-S1-QCBS-2010 entitled "Technical assistance to build capacity of Azerbaijan Railways CJSC in oil spill response preparedness" with ESER PROJECT & ENGINEERING Co. Inc. was signed on September 24, 2010. The contract will end on May, 2012.



Customer Satisfaction Survey

- The tender started in May, 2010. On November 1, 2010 contract No. AZ RTTFP-S1-03-CQS-2010 was signed with AzEko Consulting Ltd for conduction of the Client Satisfaction Survey (for 2010-2012). The Consultant finalised its assignment for the year 2010. The contract will end in November, 2012.
- Component 4: Project Implementation

ADY and Project Financial Audit

- The tender started in October, 2010. On March 31, 2011 contract No. AZ RTTFP-S5-2011 was signed with Baker Tily LLC. This contract relates to the auditing of financial reports of ADY CJSC for the year ending December 31, 2011; as wells as the auditing of the "Rail Trade and Transport Facilitation Project" for the years ending December 31, 2009, December 31 2010 (consolidated) and December 31, 2011.

Revaluation of Assets

- The tender started in November, 2010. The deadline for the submission of technical and financial proposals was set as December 4, 2011. By the deadline five companies had submitted their documents. Technical evaluation has been completed and the Evaluation Report was approved by the World Bank in early October, 2011. The opening of financial proposals is set for October 19, 2011. Signing of the contract with the award company is expected by end of October, 2011.

2.2 RESULTS/DELIVERABLES

The project results and deliverables are as follows:

- Increased volume and quality of transport service on the East-West corridor as a result of an overall impact of modernization.
- Improved operational cash flow revenues and ADY working ratio, resulting in strengthening of ADY's financial sustainability.
- Increased net ton·km per new locomotive and reduced train transit time using new locomotives, resulting in improved operational efficiency.
- Train revenue and cost per net ton·km, resulting in improvements to unit costs and revenues.
- Reduced average energy consumption per net ton/passenger·km, resulting in weak environmental impact.
- Locomotive availability improved operational capacity of ADY.
- Percentage of track in critical condition on East-West corridor is considerably reduced.
- Increase in the number of locomotives able to cross Azerbaijan reliably (non-stop).
- Locomotive reliability is increased (no unplanned failures).
- ADY's financial transparency is improved by annual audit and systematic follow up of audit qualifications.
- ADY is a commercial profit making company after transformation as joint stock company and institutional separation by line of business.



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3. PROJECT ORGANIZATION

3.1 INSTITUTIONAL FRAMEWORK

The project beneficiaries are "Azerbaijan Railways" CJSC, Ministry of Transport, Ministry of Finance, Ministry of Economic Development of Azerbaijan Republic. The owner of the project, as well as the Contracting Authority and implementing party, is "Azerbaijan Railways" CJSC.

3.2 OWNERSHIP/IMPLEMENTING PARTY

Name of the Project Owner:	"Azerbaijan Railways" CJSC
Address:	230 Dilara Aliyeva Street, AZ1010, Baku, Azerbaijan
Telephone:	+994124996395
Email:	office@ady-piu.org

3.3 ORGANIZATION STRUCTURE

ADY will be responsible for Project management and coordination through an integrated Project Implementation Unit (PIU) which will report to the PIU Director. The PIU Director will be the senior official from ADY responsible for overall management of the Project and will report to MoT and MOF. Procurement of all items funded by the loan will follow World Bank procurement procedures and guidelines.

The successful implementation of the Project requires strengthening of the implementation capacity of ADY and the PIU. The core operational PIU staff will include a PIU Manager, a Procurement Specialist and a Financial Management Specialist. The PIU manager will be responsible for the day-to-day management of the Project including procurement, financial management and liaison with the Bank.

Role	Organisation	Resource Name	Responsibilities
PIU director	ADY CJSC	G. Nazirov	Responsible for overall management of the Project.
PIU manager	ADY CJSC/PIU	F. Heybatov	Responsible for the day-to-day management of the Project including procurement, financial management, and liaison with the Bank.
Procurement specialist	ADY CJSC/PIU	N. Ahmadova	Responsible for the efficient procurement of all goods, works and services in accordance with the agreed procurement plan.

4. PROJECT BUDGET

The project total cost is estimated at US\$795 million (US\$674 million plus US\$121 million of Value Added Tax), with US\$450 million of World Bank funding, including the capitalised front-end fee of 0,25 percent (US\$1 million).

Component 1: (total cost with contingencies – US\$440 million).

Component 2: (total cost with contingencies – US\$334 million).

Component 3: (total cost with contingencies – US\$17 million).

Component 4: (total cost without contingencies – US\$3 million).



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Contract	Work	Budget [million USD]
1	Track rehabilitation	117
2	Procurement of locomotives	334
3	Electrification conversion	306
4	Signalling upgrading	17
	Total	774

Note: A detailed Cost Plan will be drawn during the Planning Phase of the project.

5. RISK ASSUMPTIONS AND CONSTRAINTS

Risk	Risk description	Likelihood (*)	Impact (*)
	Institutional resistance to change	H	H
	Low transit tariff to gain market share prevents sustainability	H	H
	Continued deferred maintenance	VL	VL
	Geopolitical instability	H	H
	No change in operation of locomotives	VL	VL
	Difficulty in implementing conversion of power supply from direct current to alternating current	H	M
	Limited experience in management of IFI financed	VH	H
		VH	L

* VL= Very Low, L = Low, M = Medium, H = High, VH = Very High



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6. IMPLEMENTATION SCHEDULE

6.1 GOODS AND WORKS

No	ID	Description	Number of Contracts	Component	Selection Method	Contract Type	Plan vs. Actual	Invitation to Bid	Expected Bid Opening Date	Contract Signature	Contract Complete		
COMPONENT 1													
1		Track Rehabilitation 317 km	Multiple	1	NBF		plan	-	-	March.2010	Dec.2013		
							actual	-	-	21.06.2010	Dec.2013		
2	S&I 1	Design, Supply and Installation of 25 kV.	1	1	ICB	PQ+ One stage	plan	PQ	23.04.2010	PQ	22.06.2010	30.03.2012	29.03.2016
								1st stage	01.05.2011	1st stage	30.07.2011		
							actual	PQ	12.05.2010	PQ	25.06.2010	-	-
								1st stage	-	1st stage	-		
3	G2	Procuremnt of signalling equipment	1	1	ICB	G	plan	TBD	TBD	TBD	TBD	TBD	
							actual						



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COMPONENT 2											
4	G1	Procurement of 40 new electric locomotives	1	2	ICB	One stage	plan	September 2011	December 2011	February 2012	2016
							actual				
5	G1-01	Procurement of 10 new electrical locomotives	1	2	ICB	One stage	plan	TBD	TBD	TBD	TBD
							actual				
COMPONENT 3 FOR GOODS AND WORKS											
6	G3	IT software procurement of ADY Financial System	1	3	ICB	S&I	plan	24.10.2011	23.12.2011	06.02.2012	08.04.2014
							actual				
7	G3-01	IT hardware procurement of ADY Financial System	1	3	ICB	G	plan	15.01.2012	04.04.2012	03.06.2012	10.09.2013
							actual				
8	G4	Oil Spill Prevention and Response Equipment	lot 1	3	ICB	G	plan	31.10.2011	30.12.2011	13.02.2012	12.02.2013
							actual				
			lot 2				plan	31.10.2011	30.12.2011	13.02.2012	12.02.2013
							actual				
9	G4-02	OSR Equipment: Safety and PP accessories and hand tools	1	3	S	G	plan	August 2011	October, 2011	25.11.2011	24.01.2012
							actual	20.09.2011	11.10.2011		
10	G4-03	OSR Equipment: hi-tech equipment	1	3	S	G	plan	August 2011	October, 2011	25.11.2011	24.01.2012
							actual	20.09.2011	11.10.2011		
11	G4-01	Construction of administrative building and warehouse for OSR team	1	3	ICB	W	plan	01.02.2012	01.05.2012	30.06.2012	30.06.2013
							actual				



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COMPONENT 4 FOR GOODS AND WORKS											
12	G5	IT procurement for PIU Contract # AZ RTTFP/G5 awarded to "Ultra Computers"	1	4	S	G	plan	05.04.2010	05.05.2010	19.05.2010	18.07.2010
							actual	22.04.2010	06.05.2010	17.05.2010	08.06.2010
13	G5-01	Vehicles for PIU (2 cars) Contract # AZ RTTFP-G5-01 awarded to "Diamond Motors" MMC	1	4	S	G	plan	21.07.2010	05.08.2010	19.08.2010	18.09.2010
							actual	20.07.2010	04.08.2010	10.08.2010	15.09.2010
14	G5-02	Shopping of Works (repair rooms for consultants) Contract # AZ RTTFP-G5-02 awarded to "STIMUL" MMC	1	4	S	G	plan	30.07.2010	14.08.2010	28.08.2010	27.10.2010
							actual	20.07.2010	30.08.2010	02.09.2010	20.09.2010
15	G5-03	Shopping of Goods (furniture for PIU) Contract # AZ RTTFP-G5-03 awarded to "EMBAWOOD" MMC	1	4	S	G	plan	20.08.2010	19.09.2010	03.10.2010	02.12.2010
							actual	06.08.2010	19.08.2010	31.08.2010	29.09.2010

6.2 CONSULTING SERVICES



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18	S1 - 01	Technical Assistance to ADY for Oil Spill Preparedness Contract # AZRTTFP-S1-01-QCBS-2010 awarded to ESER Project and Engineering Co. Inc.	1	3	QCBS	LS	plan	15.02.2010	17.03.2010	20.04.2010	11.09.2010	29.09.2010	24.10.2011
							actual	26.01.2010	26.02.2010	20.04.2010	09.09.2010	24.09.2010	24.05.2012
19	S1-03	Customer survey Contract # AZ RTTFP-S1-03-CQS-2010 awarded to AzEcoConsulting Company	1	3	CQS	LS small assignments	plan	01.05.2010	02.07.2010	16.08.2010			
							actual	07.05.2010	07.06.2010	29.09.2010	27.10.2010	01.11.2010	01.11.2013
COMPONENT 4 FOR CONSULATANCY													
20	S5	ADY and Project Financial Audit (2010-2013) AZRTTFP-S5-LCS-2010 awarded to Baker Tilly Azerbaijan LLC	1	4	LCS	LS	plan	N/A	N/A	01.09.2010			
							actual	N/A	N/A	01.10.2010	19.03.2011	31.03.2011	2013
21	S8-01	Re-evaluation of ADY's assets	1	4	QCBS	LS	plan	01.10.2010	31.10.2010	14.01.2011			
							actual	19.11.2010	16.12.2010	24.02.2011			
22	S6	T.A. to PIU STAFF	Multiple	4	IC	IC	total plan	TBD				TBD	TBD
							actual						



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	Project Manager Mr. Farruh Heybatov Contract # AZRTTFP-IC-S6-PM-2011					actual	19.01.2010	08.02.2010	N/A	N/A	01.03.2010	01.03.2013
	Translator Mrs. Tarana Maqsudova Contract # AZRTTFP- IC-S6-TR-2011					actual	03.06.2010	25.06.2010	N/A	N/A	16.02.2010	16.02.2013
	Procurement Specialist Mrs. Nigar Ahmadova, Contract # AZRTTFP-IC-S6-PS-2011					actual	07.11.2007	24.11.2007	N/A	N/A	01.02.2010	01.02.2013
	Secondary Procurement Specialist Mr. Azer Dashdamirov, Contract # AZRTTFP-IC-S6-PS2-2011					actual	-	-	N/A	N/A	01.07.2010	01.07.2013
	Financial Management Specialist Mr. Vusal Mehdiyev, Contract # AZRTTFP- IC-S6-FMS-2011					actual	03.06.2010	25.06.2010	N/A	N/A	22.02.2010	22.02.2013
	Railways Monitoring and Evaluation Specialist Mr. Yusif Gayibov, Contract # AZRTTFP-IC-S6-MS-2011					actual	-	-	N/A	N/A	02.08.2010	02.08.2013
	Accountant (vacant)					plan						
	Group Assistant Mr. Ilgar Heydarov, Contract #AZRTTFP/IC/2010/03					actual	-	-	N/A	N/A	01.02.2011	01.02.2012



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		Evaluation and assessment Specialist Mr. Azer Zeynalov, Contract # AZRTTFP/IC/2011/05					actual	-	-	N/A	N/A	21.01.2011	21.01.2012
		Drivers 1) Mr. Rovshan Abdulhamidov, Contract # AZRTTFP/IC/2010/04					actual	-	-	N/A	N/A	18.11.2010	18.11.2011
		2) Mr. Elnur Musayev, Contract #AZRTTFP/IC/2011/06					actual	-	-	N/A	N/A	14.02.2011	14.02.2013
23	S7	Consultant for evaluation formula Contract # AZ RTTFP-S7-IC-2009 awarded to Mr. David Tennent (USA)	1	4	IC	IC	plan	15.05.2009	15.06.2009	17.07.2009	N/A	August 2009	September 2009
							actual	15.05.2009	15.06.2009	17.07.2009	N/A	23.10.2009	31.12.2010
24	S8	IFRS Coordinator Mr. Afsun Alakbar Contract # AZRTTFP-S8-2010-IC-TB	1	4	IC	IC	plan	31.05.2010	14.06.2010	N/A	N/A	01.02.2010	01.02.2011
							actual	31.05.2010	14.06.2010	N/A	N/A	01.02.2010	01.02.2011
25	S9	Study of electric passenger locomotive operation, maintenance and specifications.	1	4	IC	IC	plan	Individual Invitations	Individual Invitations	N/A	N/A	TBD	TBD
							actual						
26	S10	The study on the changes made in the legal framework to support business structure.	1	4	CQS	LS	plan	TBD	TBD	TBD	TBD	TBD	TBD
							actual						



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27	Trainings, seminars, etc	Multiple	4		plan	TBD	TBD			TBD	TBD

ICB: International Competitive Bidding

G: Goods

SI: Supply and Installation

NBF: Non Bank Financed

IC: Individual Consultant

QCBS: Quality and Cost Based Selection

CS: Consulting Services

RFP: Request for Proposal

LS: Lump Sum

TB: Time Based



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7. ENVIRONMENT

No significant environmental issues are anticipated for this project. In accordance with the World Bank's safeguard policies and procedures, including OP/BP/GP 4,01 Environmental Assessment the modernisation of the rail network has been classified as a Category B project for environmental assessment purposes.

ADY specialists prepared the Environmental Assessment (EA) together with an Environmental Management Plan (EMP) which were published on May 1, 2007 on the World Bank website. The EA identifies possible impacts of the project activities and mitigation measures. This document is publicly available and can be obtained from ADY (Environmental Department), the Aarhus Convention Centre of the Ministry of Ecology and Natural Resources and through the World Bank external internet site.

Road User and Environmental Benefits

Generally speaking, the external costs of road transport (such as loss by environmental damage, accidents and congestion delays) are considerably higher than those for rail.

In this context, the electrification transition will divert highway users to rail and thus create benefits for the environment and for remaining road users. These benefits include decongestion on the road network and reductions in road accident costs and air pollution. As shown in Figure 2, the marginal private cost (MPC) of travel by road is below the marginal social cost (MSC) of travel. This is mainly explained by the fact that there are external costs for road vehicles, in the form of time delays, noise and air pollution and accident costs. Road users do not include these external expenses in their travel costs.

8. RATES OF RETURN

8.1 ECONOMIC AND FINANCIAL ANALYSES

Economic (Cost-Benefit) Analysis: EIRR=19 percent; NPV=US\$250 million

The project comprises a set of investments: track rehabilitation, new locomotives, new system for providing electric power for traction and oil spill response equipment that will allow ADY to provide safe, high quality transport service on the East-West corridor, including oil and oil products business. These investments are necessary for ADY to attract and serve this traffic. The project benefits are that ADY can sustain and grow its profitable freight business and that it can experience lower energy and track maintenance costs.

The economic analysis of track rehabilitation compares a "do-nothing" scenario and a "do the investment" scenario. The model forecasts the cost to ADY of these two scenarios, given the forecast traffic on the main East-West line. The benefits of rehabilitating the track include: (i) reduced track maintenance costs; (ii) reduced energy costs; (iii) improved equipment utilization due to reduced turnaround times for locomotives and wagons; (iv) reduced incidence of derailments, and (v) improved service offered by ADY to customers. The economic analysis of Component 1 quantifies (i) - (iii). To avoid any overlap with the analysis of locomotives, however, only the benefits of (i) and (ii) are counted in the economic analysis of the overall project.

The economic analysis of the motive power renewal also compares a "do nothing" scenario and a "do the investment" scenario. In the "do nothing" scenario, ADY does not replace the locomotives in its fleet as they become non-operational. As the fleet shrinks, ADY can handle less and less traffic. In the "do the investment" scenario, ADY renews the fleet, together with replacing the electric supply system that powers the locomotives, so it can handle the traffic.



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The value of the traffic that would be lost is estimated as the revenue from the traffic minus the variable operating expenses that would be saved if the traffic were not moved.

The economic net present value of the investment package is US\$250 million on investment of US\$661 million. The Internal Rate of Return (IRR) of the investment is 19 percent. Sensitivity analysis shows that the returns are somewhat sensitive to traffic volumes, but that even in the low traffic case (scenario I) the IRR remains at 17 percent. See Annex 9 for details.

8.2 FINANCIAL (SEE ANNEX 9) FOR ENTIRE GOVERNMENT PROGRAM, INCLUDING THIS PROJECT

NPV (at weighted average cost of capital 7,7 percent) = US\$73 million; FRR 4,4 percent

The financial analysis of ADY assumes that the railway carries out the Government Program for the railways (described in Annex 1), of which the project is a part. The forecast assumes that the Government of Azerbaijan will on-lend to ADY for new locomotives, modernisation and project implementation (US\$216 million), from other IFIs for the remainder of the rolling stock in the investment program (US\$308 million) and that government will provide grant funding for the remainder of the investment program.

ADY revenue grows gradually throughout the forecast period from AZN 169 million to AZN 244 million. After the initial revenue boost of 10 percent in 2008, freight rates are flat and revenue growth comes from an increase in traffic (overall growth of 3 percent per year). Oil and oil products revenue grows quite modestly (a conservative assumptions, if ADY reform and investment improve service levels) and most revenue growth is expected from other freight traffic also. No real growth is included in passenger fares and passenger revenue grows modestly together with traffic.

Operating expenses also show a gradual increase over the period. Reductions in track maintenance and locomotive operation and maintenance costs occur because of investments in locomotives, power supply and track. The working ratio improves from 74 percent to 56 percent. The operating ratio also improves, but less strongly because depreciation increases offset other reductions in operation expense.

ADY is profitable and has positive cash flow from operations throughout the forecast period. Cash flow is sufficient to cover all financing needs (both World Bank and other IF1 13 financing). ADY maintains a debt service coverage ratio over two throughout the period of the World Bank loan.

The cost of the comprehensive Government Program compared to the resulting cash flows, discounted at ADY's weighted average cost of capital (7,7 percent) is AZN 62 million.

The Financial (Internal) Rate of Return (FRR) of the investment is 8,4 percent and payback period is 15,4 years.

9. INVESTMENT CRITERIA

The lending instrument proposed for this project is a Specific Investment Loan (SIL) to the Republic of Azerbaijan in the amount of US\$450 million. The Loan type for this loan is a US Dollar denominated fixed-spread variable rate loan (FSL) with annuity repayments and with a 17 year maturity, including a four year grace period. The Government of Azerbaijan will on-grant the loan proceeds to ADY for infrastructure related investments and on-lend the loan



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proceeds to ADY for locomotive purchase and for the implementation of the modernisation component. Other Government contributions will be granted to ADY.

10. SOURCES OF FINANCING

- The World Bank – 450 million USD
- Government of Azerbaijan – 345 million USD
- Azerbaijan Railways CJSC – 1 million USD
- Czech Export Bank – 215 million EUR (this amount is included to GoA share).



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