



ENERGY SYSTEM INTEGRATOR LTD

*presentation of
Kovin Energy Complex Project*

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Profile and background

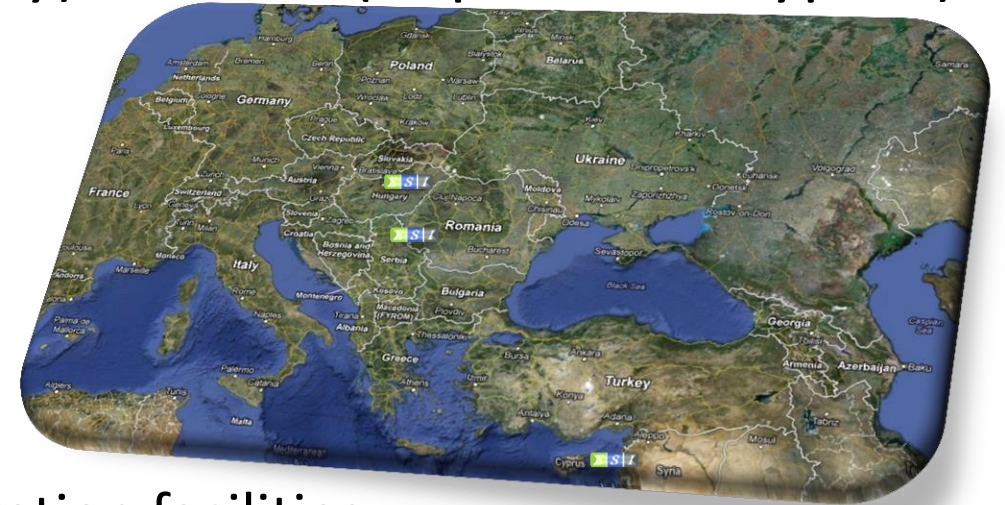
Energy System Integrator Ltd (ESI) is a private company headquartered in Belgrade, with offices in Budapest (Hungary), Nicosia (Republic of Cyprus) and Moscow (Russian Federation).

We provide services in the areas of:

- Project development and management
- Consulting and advocacy

Our key areas of expertise include:

- small, medium and large scale power generation facilities
- industrial facilities
- public private partnership investing



Company references

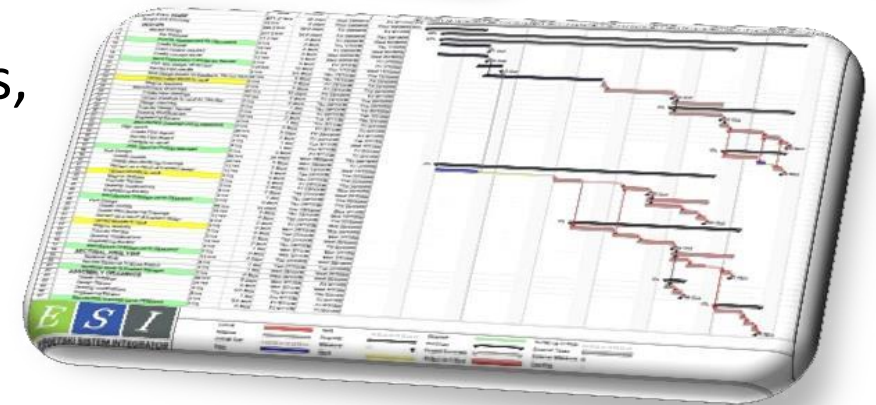
ESI provides national and international market recognized:

- licenses engineers for mechanical, electrical, mining, geology and civil engineering, attorneys and financial experts
- QMS, EMS and PCM experts
- certified ISO/BS/EN/DIN/SRPS auditors

Reliable documentation for project development and/or project management

- SWOT analysis, Gantt charts, Ishikawa diagrams, Logical Framework Matrix, Lean Six Sigma, Financial modeling and 3d modeling layouts

	Project Description	Verifiable indicators of achievement	Sources and means of verification	Assumptions
Goal	What is the overall broader impact to which the action will contribute?	What are the key indicators related to the overall goal?	What are the sources of information for these indicators?	What are the external factors necessary to sustain objectives in the long term?
Purpose	What is the immediate development outcome at the end of the project?	Which indicators clearly show that the objective of the action has been achieved?	What are the sources of information that exist or can be collected? What are the methods required to get this information?	Which factors and conditions are necessary to achieve that objective? (external conditions)
Outputs	What are the specifically deliverable results envisaged to achieve the specific objectives?	What are the indicators to measure whether and to what extent the action achieves the expected results?	What are the sources of information for these indicators?	What external conditions must be met to obtain the expected results on schedule?
Activities	What are the key activities to be carried out and in what sequence in order to produce the expected results?	What are the means required to implement these activities, e.g. personnel, equipment, supplies, etc.	What are the sources of information about action progress? Costs What are the action costs?	What pre-conditions are required before the action starts?





Coal mine & 700 MW TPP



8 SHPPs 2.4MW



400 MW gas fired TPP



52 MW dual fuel TPP



	700 MW [Serbia]
	2.4 MW [Serbia]
	400 MW [Montenegro]
+	52 MW [Cyprus]
total developing 1.15 GW	

Company references

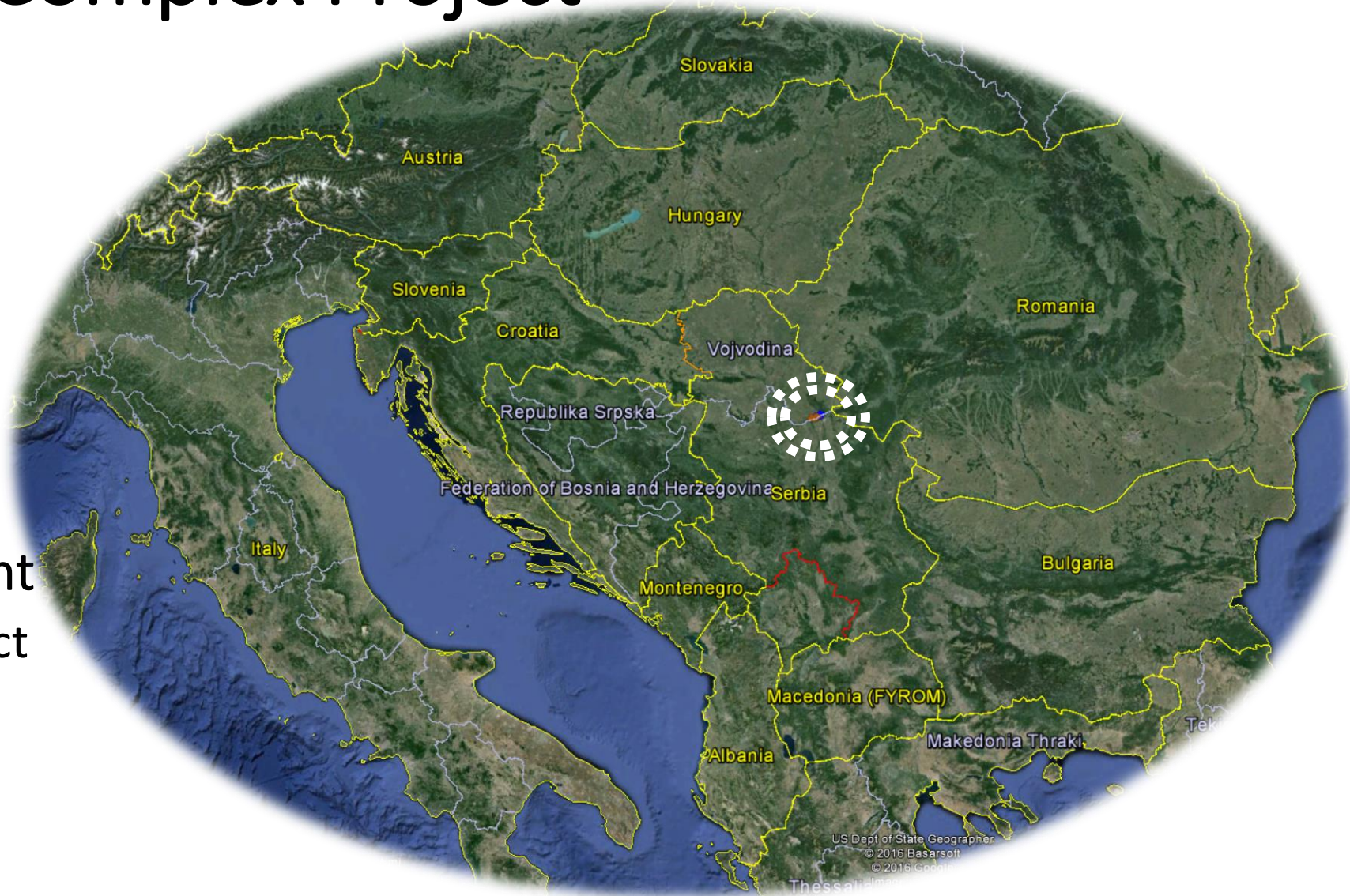
Company references

We have established and maintain good cooperation with renown international companies and corporation in the field of power, energy, gas, infrastructure, construction, investing and other areas of work.



Kovin Energy Complex Project

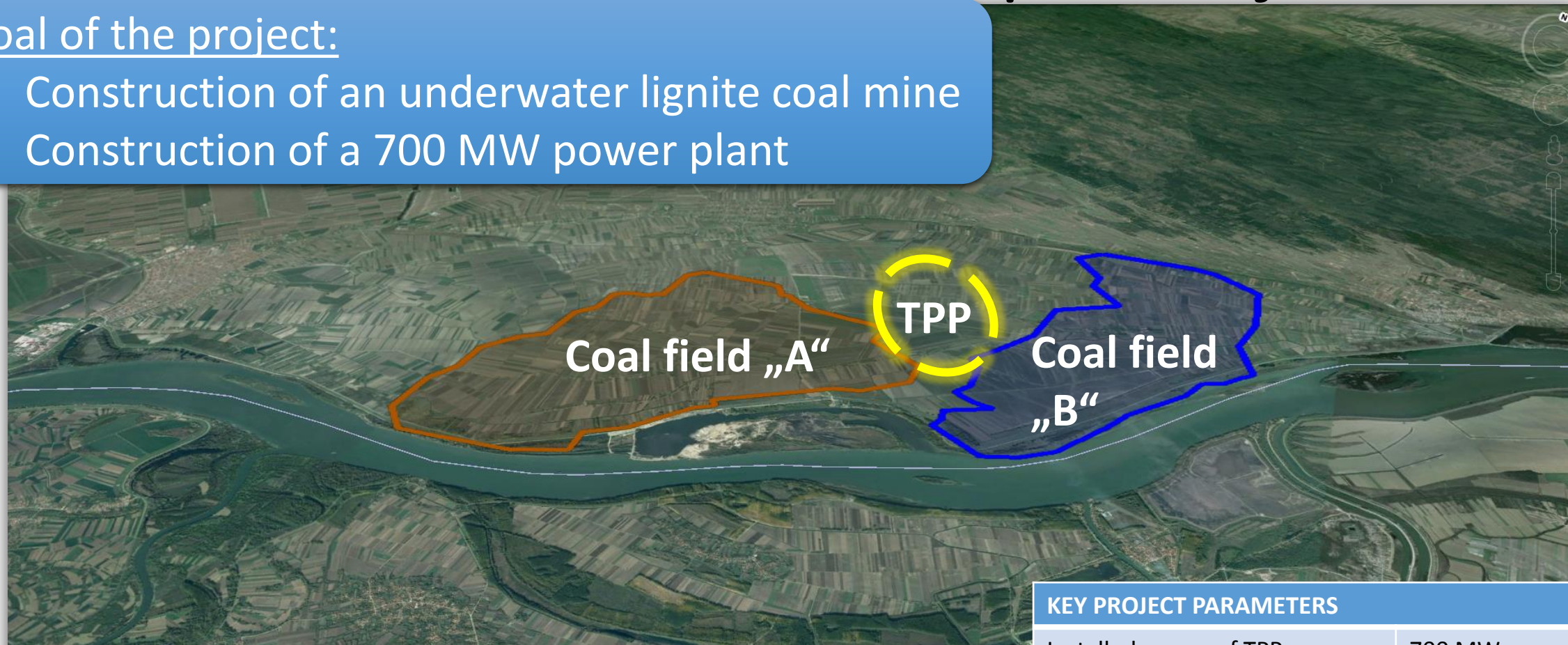
- Project goal
- Key stakeholders
- Project development
 - Status of the project
 - Upcoming steps



Goal of the Kovin Energy Complex Project

Goal of the project:

- ✓ Construction of an underwater lignite coal mine
- ✓ Construction of a 700 MW power plant



Project is located 11km from city of Kovin, on the left side of Danube, in the area between Malo Bavanište and Dubovac villages, at 70km from Belgrade, spanning at 40km².

KEY PROJECT PARAMETERS

Installed power of TPP	700 MW
Coal mine and TPP exploitation	35+ years
Annual electricity production	4 865 GWh
Estimated investment	1 158 117 525 EUR

Key stakeholders

- Energy Complex Ltd, Kovin
- Republic of Serbia
 - Ministry of Mining and Energy
 - Provincial Secretariat for Energy and Mineral Resources
- NIS GazpromNeft, Serbia/Russia
- China Huadian Corporation Ltd, PR China
- Tianjin Dredging Corporation Ltd, PR China
- ✓ IHC Merwede, Netherlands
- ✓ Alstom/General Electric, France/USA
- ✓ Alpiq, Switzerland

ENERGETSKI KOMPLEKS



REPUBLIKA SRBIJA
AUTONOMNA POKRAJINA VOJVODINA
POKRAJINSKI SEKRETARIJAT ZA
ENERGETIKU I MINERALNE SIROVINE



中交天津航道局有限公司
CCCC TIANJIN DREDGING CO.,LTD



Key stakeholders



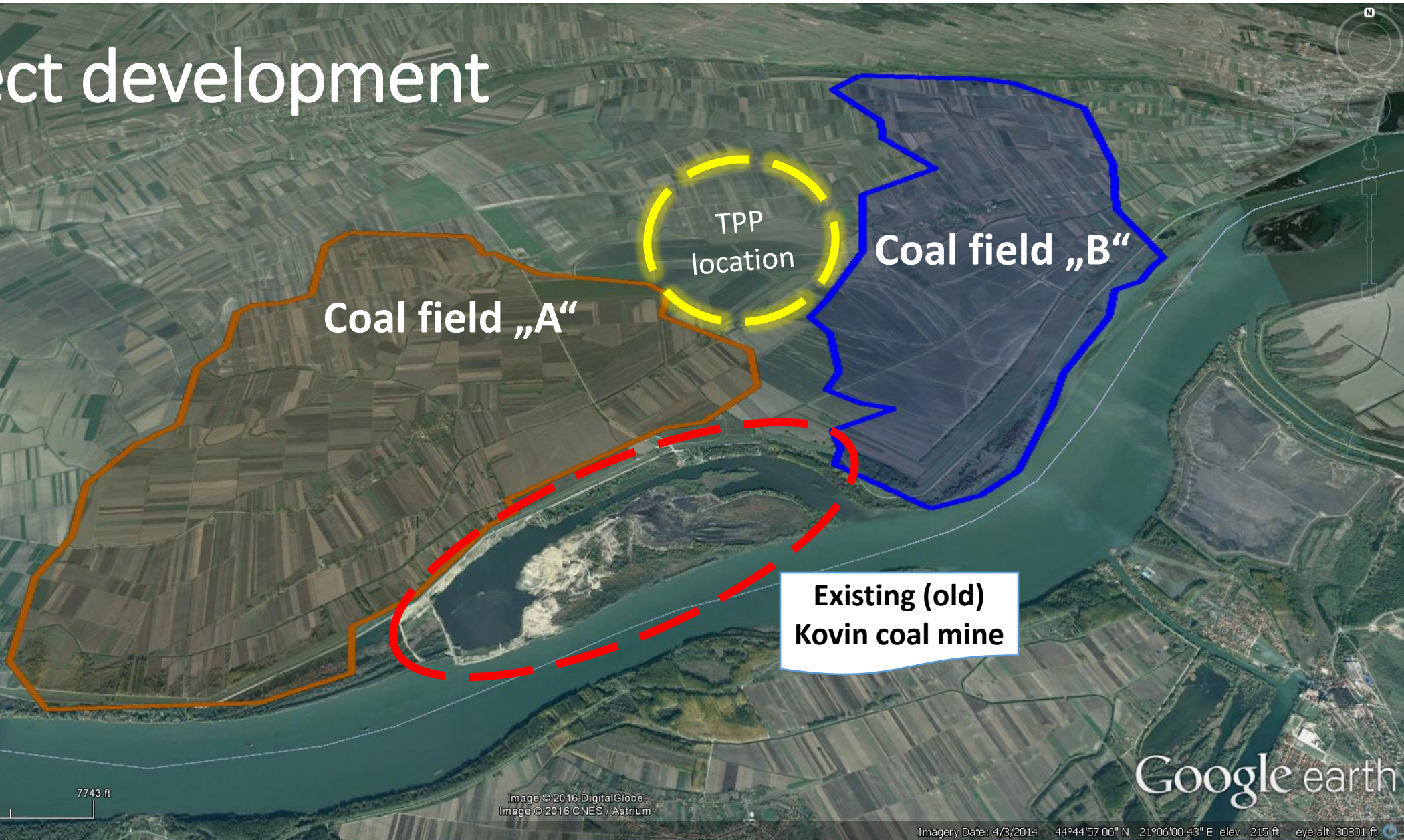
Project financing



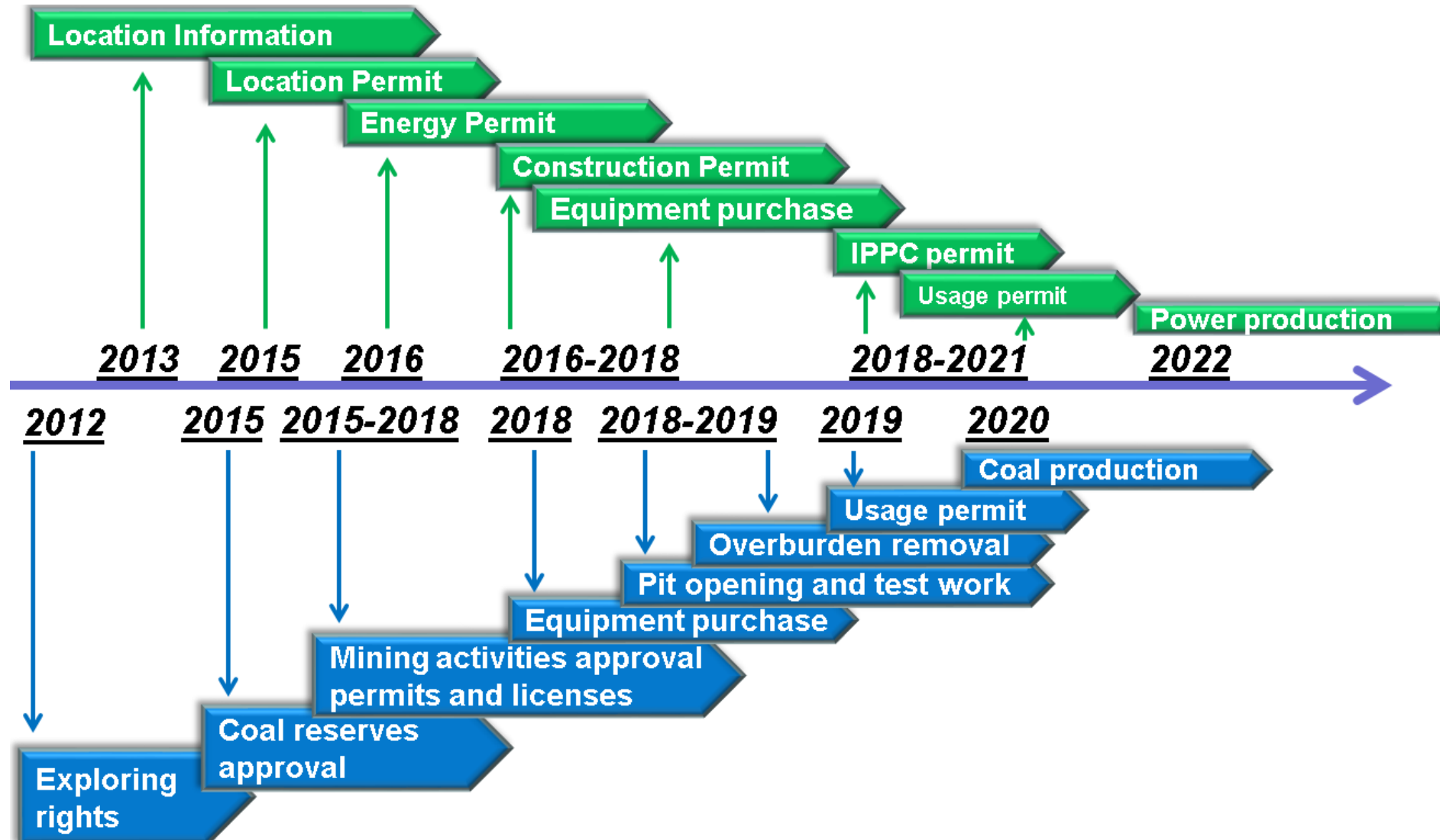
Project shareholding

Project development

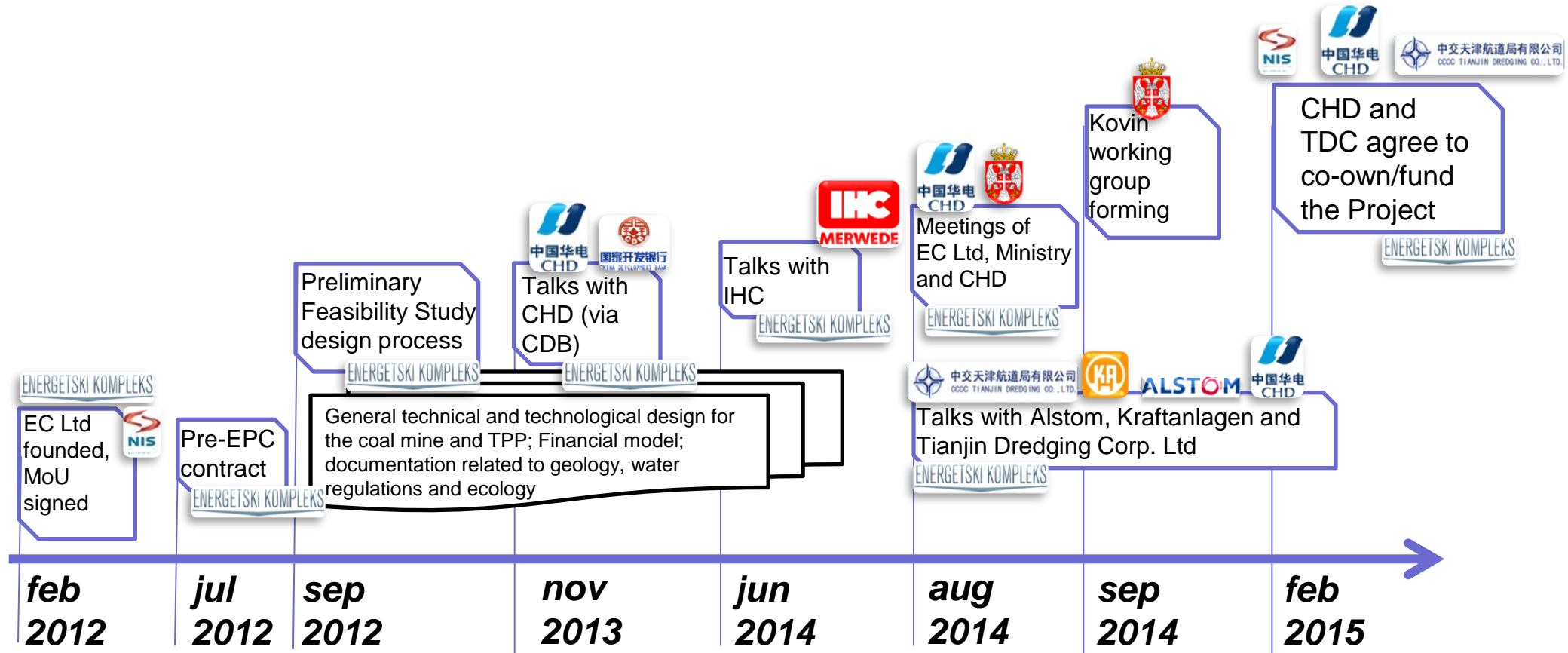
KEY COAL FEATURES	
Moisture	42.83%
Ashes	20.42%
S – total	1.05%
S – ashes	0.64%
S – combs.	0.59%
Coke	33.46%
C-fix	17.88%
Volatiles	23.23%
Combustibles	39.63%
LHE (kJ/kg)	8 914
HHE (kJ/kg)	10 120
TOTAL COAL RESERVES	
212 837 018 m³	
266 107 758 t	



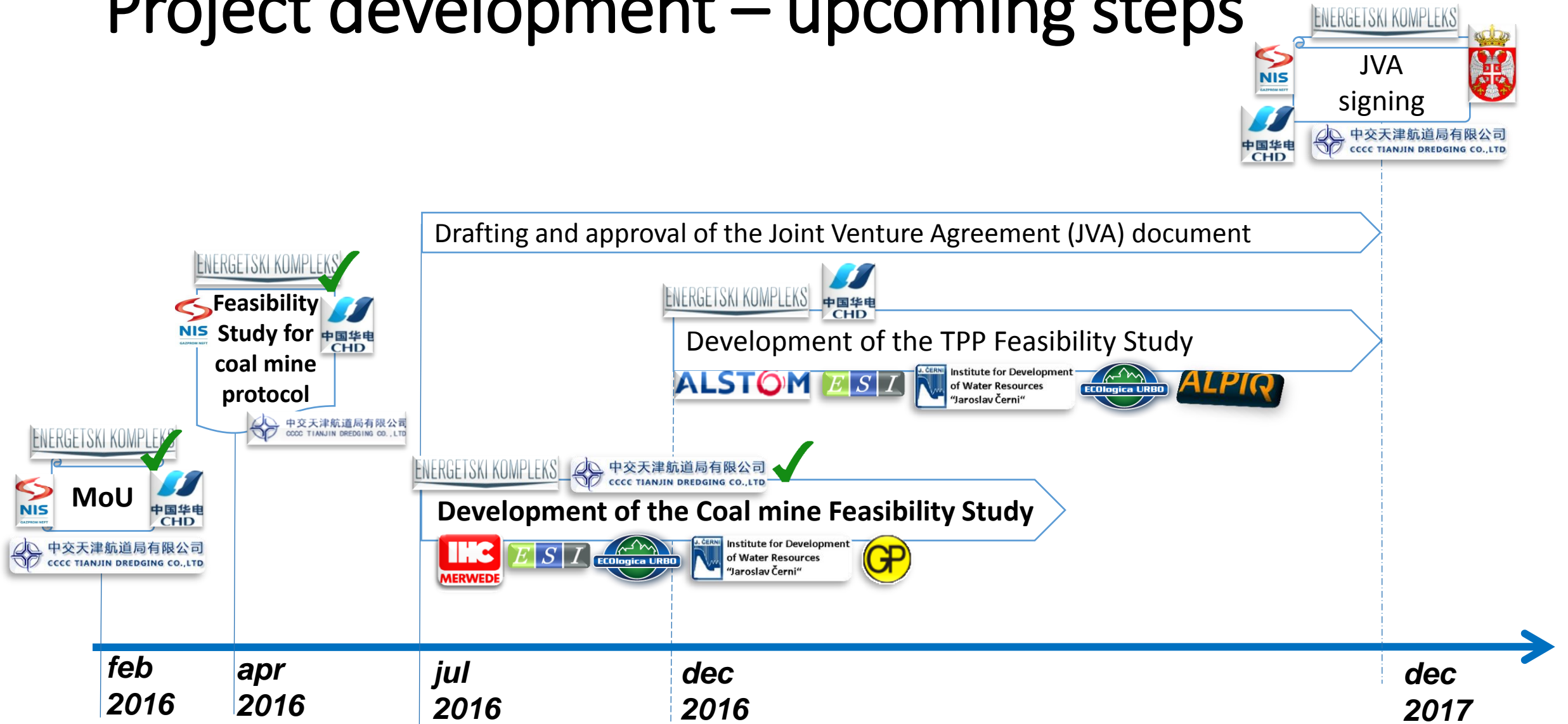
Project development – development overview



Project development – previous steps



Project development – upcoming steps



CONTACT

We stand at your disposal for all additional questions and inquiries.



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