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50 MW Solar PV Karatau, Kazakhstan

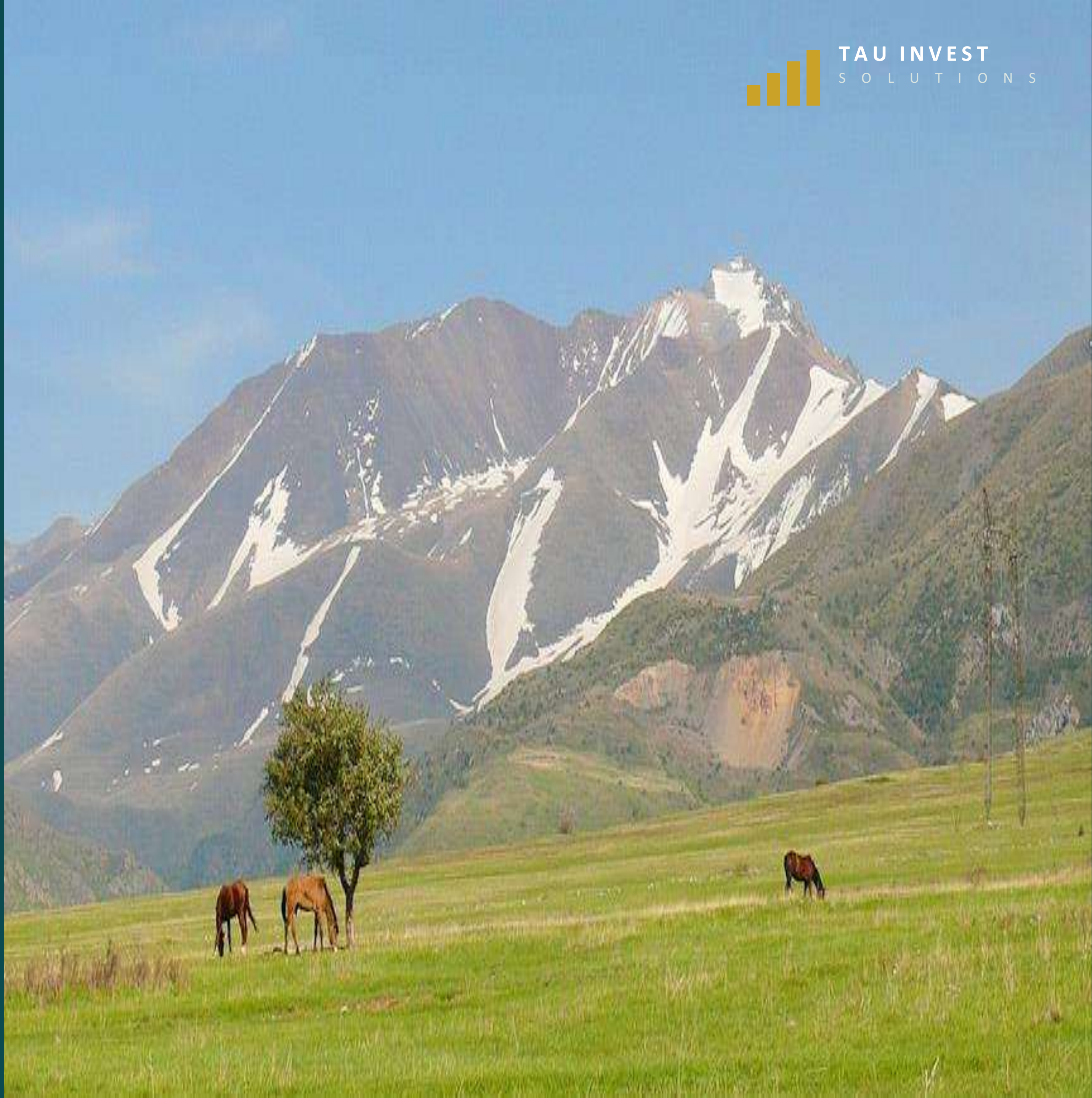
Investment opportunity in the Zhambyl Region — a ready-to-build utility-scale solar project with approved grid connection, secured land and a bankable financial model.

50 MW
installed AC capacity

≈24 %
IRR on equity

15 yrs
CPI-indexed tariff

1489
kWh/kWp specific yield



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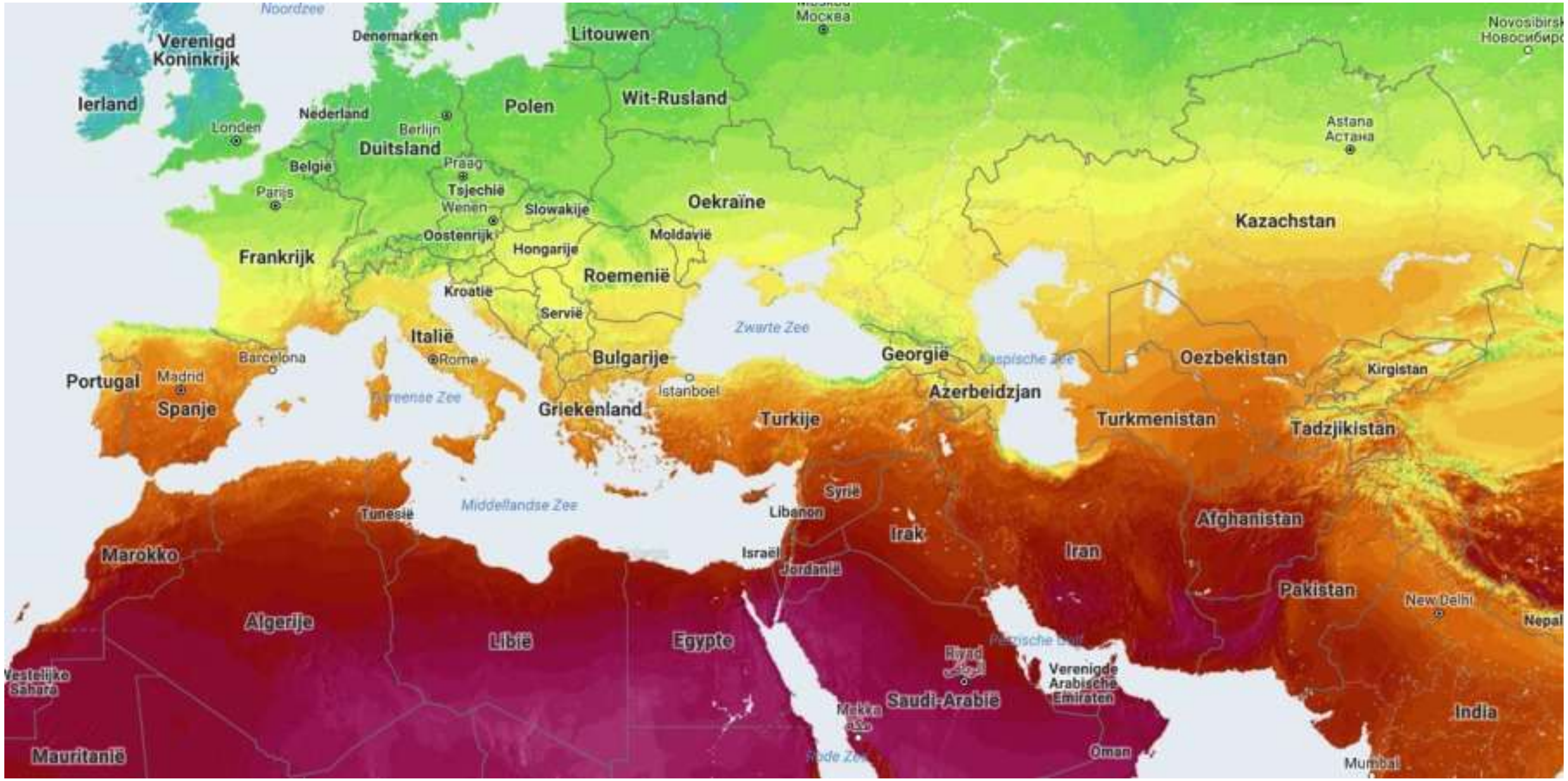
On the Sunbelt — and on the Silk Road

Kazakhstan sits in the Sunbelt region and on the Silk Road corridor of China's One Belt One Road program — combining high solar resource with strategic logistics between China, Russia, the Middle East and Europe.



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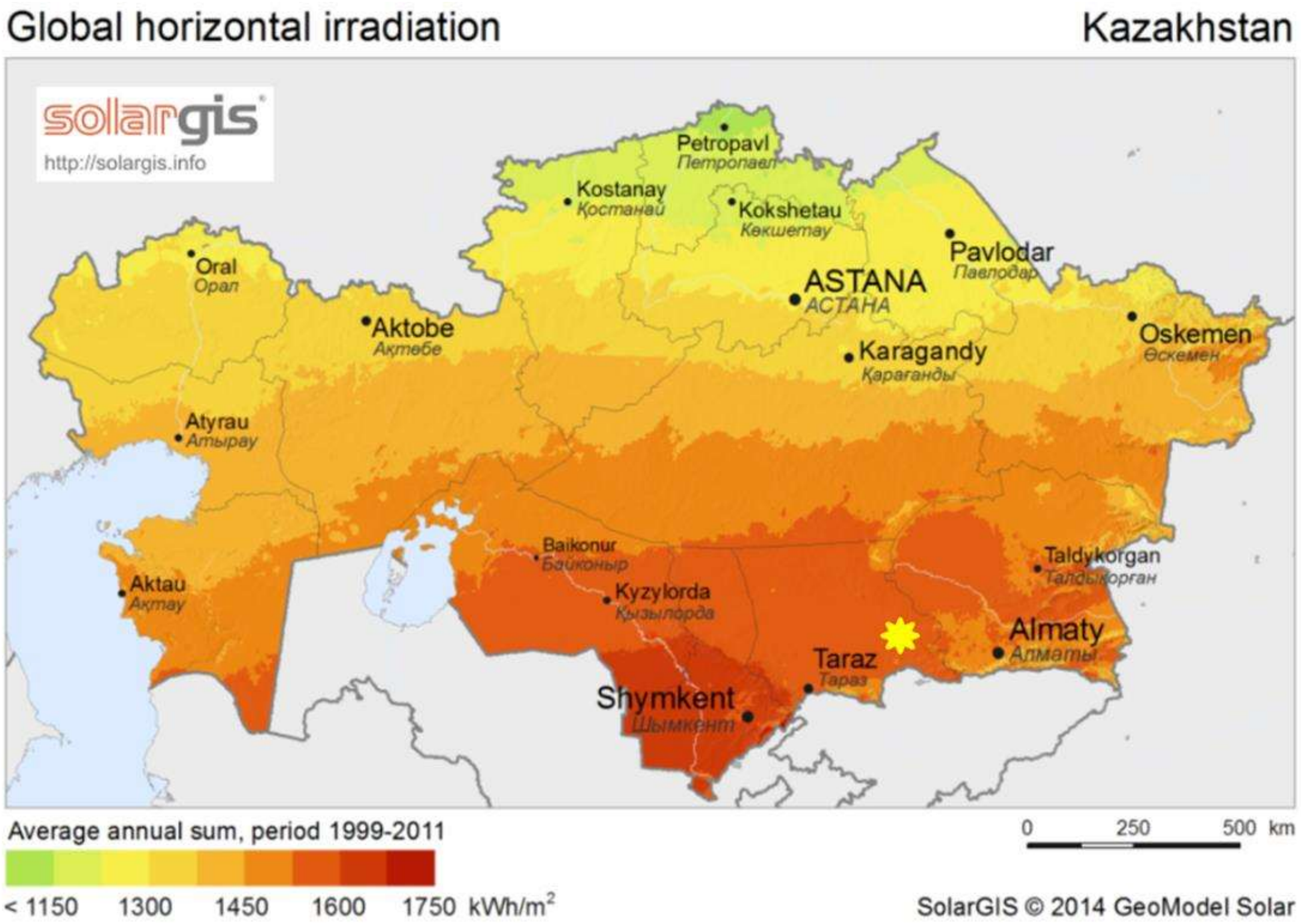
Horizontal solar irradiation



Project site — Zhambyl Region

The Karatau site lies in Kazakhstan's southern high-irradiation belt, with an average annual global horizontal irradiation of 1600–1750 kWh/m² (SolarGIS, 1999–2011).

Source: SolarGIS © 2014 GeoModel Solar

Renewable energy in Kazakhstan

Long-term commitment: share of electricity generated by renewable energy sources

3 %	10 %	50 %
by 2020	by 2030	by 2050

Source: Action Plan for the development of alternative and renewable energy in Kazakhstan for 2013–2020 (Governmental Decree No. 43 of 25.01.2013)

Fixed feed-in tariffs — Government Decree "On approval of fixed Tariffs" No. 645 of 12 June 2014 (excl. VAT):

Solar power	Biogas plant	Wind power	Small hydro
34.61	32.23	22.68	16.71
tenge / kWh	tenge / kWh	tenge / kWh	tenge / kWh

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Process in Kazakhstan

01 — **Land**

Land allotment (3-year study). 49-year Land Lease Agreement — cost max. $10,000 / 320 ha per year.

02 — **Grid study**

Power Distribution Diagram. Submission to KEGOC and receipt of KEGOC technical requirements.

03 — **Feasibility study**

Economic model, soil investigation, environmental impact assessment and related studies.

04 — **PPA**

Submit both studies and KEGOC requirements to the Ministry of Energy. Registration as Producer of Renewable Energy. Signing of the PPA contract.


Республика Казахстан

ТОО «БИС ПРОЕКТ»

Общая пояснительная записка

Схема выдачи мощности СЭС Кун Кайрат мощностью 100 МВт в Сарыагашском районе Южно-Казахстанской области

Генеральный директор

Главный инженер

г. Алматы, 2016 г.

Grid study documentation prepared and approved for the Karatau project

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Karatau — Zhambyl Region

1.2 M

population of the region

Taraz

regional capital

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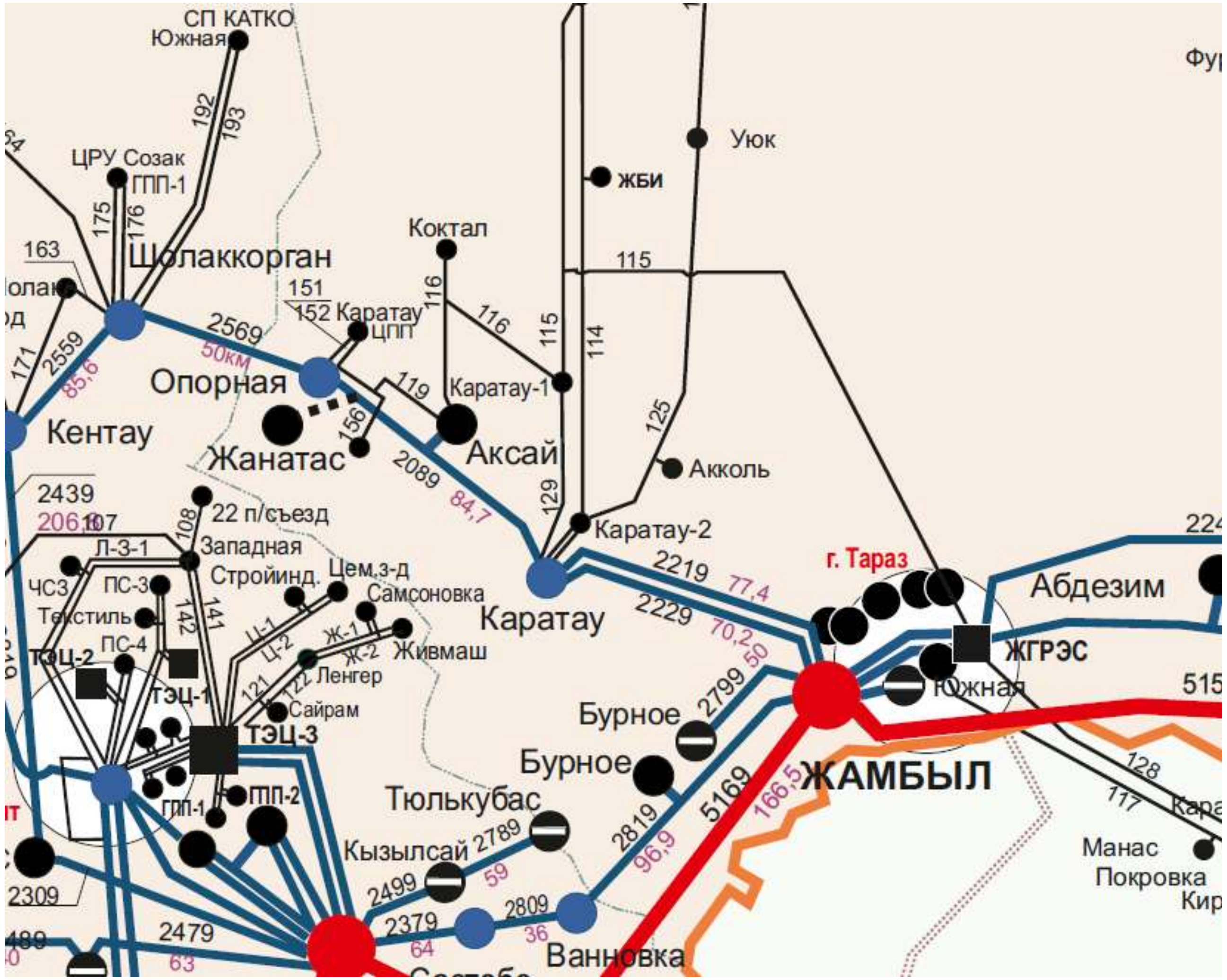
Grid infrastructure — regional network



220 kV substation at Karatau

The project connects to the existing high-voltage node at Karatau on the regional transmission network towards Taraz / Zhambyl.

Grid connection: 110 kV cell, distance to the connection point under 1 km from the site.

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Site overview — satellite view

СЭС Каратау site

- 150 ha of leased land immediately south-west of Karatau town
- 220 kV substation adjacent to the site
- Flat, open terrain suitable for utility-scale PV

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Site view — land and substation

Open steppe terrain with the town of Karatau in the background. The 220 kV substation and existing transmission corridors are directly adjacent to the project land — minimising grid-connection cost and construction risk.

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50 MW Solar PV project — key facts

Location	Karatau city, Zhambyl Region, Kazakhstan
Size	50 MW installed AC capacity
SPV	ST Power LLP — 100 % owned by QWAY energy LLP (Astana)
Specific yield	1489 kWh/kWp
Property	150 ha, 49-year lease agreement (25/10/2015 – 19/10/2064)
Grid	Connection to 110 kV cell · distance < 1 km

Approvals in place

- Power Distribution Diagram approved by KEGOC National Operator — ref. # 24-02-07/8714 of 29/12/2015
- KEGOC Technical Requirements for grid connection issued — ref. # 24-02-15/907 of 04/02/2016
- Plan to enter the Kazakhstan renewables auction, March 2018

0.087 $/kWh

expected tariff, paid in KZT · 15 years, CPI-indexed · assumed inflation 8 % p.a.

Assumptions

Size: 50 MW installed AC capacity · 62 MWp (DC) installed

Specific yield: 1489 kWh/kWp

Tariff: 0.087 $/kWh, paid in local currency (KZT)

Indexation: 15 years, linked to CPI · assumed yearly inflation 8 %

Debt: 80 % @ 7 % interest rate, 15-year tenor

CAPEX

EPC cost (incl. bridge financing of construction)	**810 $/kWp**
Acquisition of SPV	**96 k$/MWp**
DD / legal cost	**15 k$/MWp**
Grid connection	**10 k$/MWp**
PDP	**3 k$/MWp**
Contingency	**20 k$/MWp**

OPEX (annual)

O&M	**15 k$/MWp**
Insurance	**2 k$/MWp**
Rent	**0.2 k$/MWp**
Company management	**1 k$/MWp**

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Returns and 15-year projection

$11.7 M
invested equity

≈24 %
IRR on equity

$27 M
NPV @ 10 %

1.3
min. DSCR

2.03
average DSCR

	1Y	2Y	3Y	4Y	5Y	6Y	7Y	8Y	9Y	10Y	11Y	12Y	13Y	14Y	15Y
Output, GWh	90.0	89.4	88.7	88.1	87.4	86.8	86.1	85.5	84.8	84.2	83.5	82.9	82.3	81.6	81.0
Revenues, $K	7 831	8 319	8 837	9 387	9 970	10 589	11 246	11 943	12 682	13 467	14 299	15 181	16 117	17 110	18 163
Opex, $K	1 128	1 208	1 292	1 383	1 480	1 584	1 695	1 813	1 940	2 077	2 222	2 378	2 545	2 723	2 914
EBITDA, $K	6 703	7 111	7 545	8 004	8 490	9 006	9 551	10 129	10 742	11 390	12 076	12 803	13 573	14 387	15 249
EBITDA margin	85.6%	85.5%	85.4%	85.3%	85.2%	85.0%	84.9%	84.8%	84.7%	84.6%	84.5%	84.3%	84.2%	84.1%	84.0%
EBIT, $K	2 801	3 210	3 643	4 102	4 588	5 104	5 649	6 228	6 840	7 488	8 175	8 901	9 671	10 485	11 347
EBIT margin	35.8%	38.6%	41.2%	43.7%	46.0%	48.2%	50.2%	52.1%	53.9%	55.6%	57.2%	58.6%	60.0%	61.3%	62.5%
Net CF, $K	**1 657**	**1 958**	**2 277**	**2 614**	**2 971**	**3 349**	**3 749**	**4 173**	**4 621**	**5 095**	**5 596**	**6 126**	**6 686**	**7 279**	**7 906**
DSCR	**1.3**	**1.4**	**1.5**	**1.6**	**1.7**	**1.8**	**1.9**	**2.0**	**2.1**	**2.2**	**2.3**	**2.5**	**2.6**	**2.8**	**3.0**

One local partner for the entire project

Tau Invest Solutions accompanies the investor through the full investment cycle in Kazakhstan — from due diligence and structuring to construction, financing and operations.

Deal structuring & legal

Due diligence of the SPV, land lease and permits · corporate law · offshore holding structures (SVG, UAE, Hong Kong, Mauritius, Cyprus)

Permits & government relations

KEGOC, Ministry of Energy, akimats — auction registration, PPA signing and all approvals through direct working relationships

Turnkey construction (EPC)

Design and construction through a partner group with 20+ years of experience — one responsible contractor, fixed timeline and budget

Financing & banks

Preferential financing packaged through BRK, Damu, QIC and KazakhExport — one application, four development institutions

Localisation & operations

Staff recruitment, work-permit and relocation support, O&M setup and ongoing company management

Export & offtake support

Power offtake administration, certification, customs and logistics support across the EAEU and Central Asia

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HOW WE WORK

From first call to first kilowatt-hour

01
Discovery
We match your investment brief against the project's parameters, tariff economics and Kazakhstan's sector priorities

02
Structuring
SPV acquisition, land, tax package, permits and financing are structured before capital is deployed

03
Delivery
Construction, grid connection, hiring, certification and state approvals — in one set of hands

04
Operations
Ongoing management, offtake administration and personnel support after commissioning

“An investor doesn't need ten contractors — they need one partner who answers for the result.”

C O N T A C T   U S

Let's discuss your solar investment in Kazakhstan

Share your investment criteria — we will respond within one business day with a proposed next step.

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