

**Республика Казахстан
ТОО "Energy System Researches"
("Исследования энергосистем")**



Презентация компании

г. Алматы, 2025 г.

The Republic of Kazakhstan Energy System Researches LLP



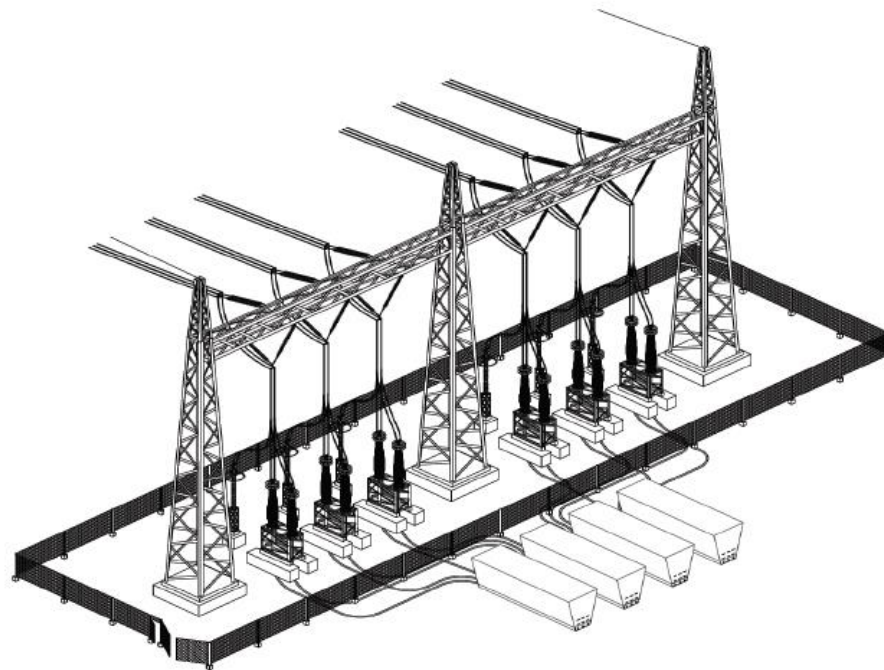
Presentation of the company

Almaty, 2025

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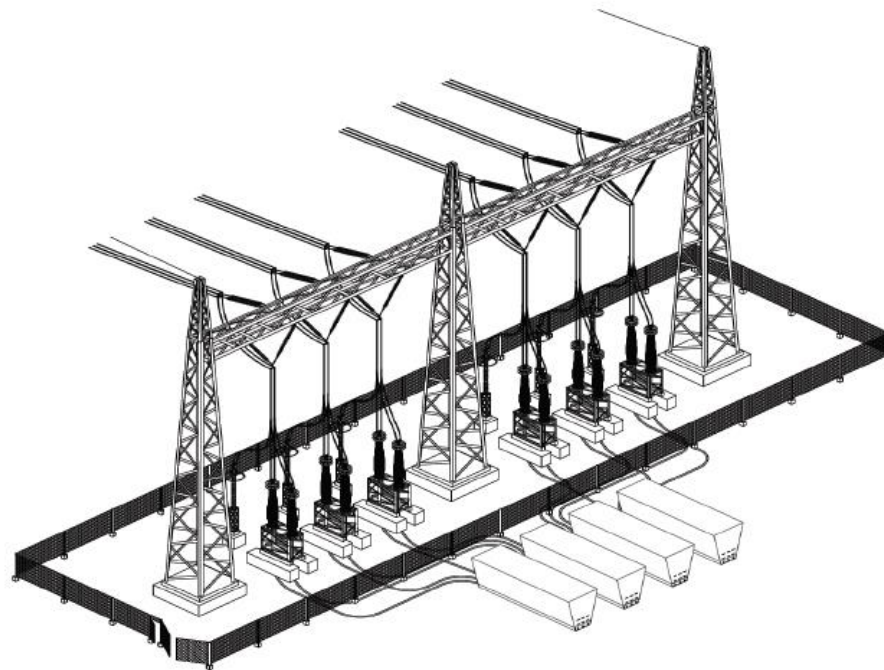
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О компании (начало)

ТОО “Energy System Researches” основано в 2011 году и обладает ключевыми компетенциями в части поиска оптимальных решений по перспективному развитию электроснабжения промышленных предприятий, городов и регионов в комплексе с развитием генерирующих источников и системообразующих электрических сетей ЕЭС Казахстана;

Уникальный опыт в проектировании электроэнергетической системы РК и новейшие направления и методы планирования, фундаментальные знания и прогрессивные подходы специалистов с международными сертификатами и профильным высшим образованием от ведущих ВУЗов Казахстана ((Алматинский университет энергетики и связи имени Гумарбека Даукеева), России («Национальный исследовательский университет „МЭИ“», «Санкт-Петербургский политехнический университет Петра Великого», «Национальный исследовательский Томский политехнический университет») и США (Arizona state university);

Актуальная систематизированная информация по существующему состоянию и перспективному развитию электрических сетей 35-500 кВ ЕЭС Казахстана, промышленных предприятий, транспортных магистралей и электрических станций, городов и населенных пунктов. Все наши исследования выполняются с использованием современного лицензионного программного обеспечения;

Опыт сотрудничества с зарубежными компаниями и партнёрами, возможность ведения деловых переговоров, переписки и презентаций на английском языке;

Ориентация работы на результат, техническое сопровождение решений вплоть до этапа внедрения и конкретной реализации.

About us (beginning)

Energy System Researches LLP was founded in 2011 and has key competencies in the search for optimal solutions for the prospective development of power supply to industrial enterprises, cities and regions in conjunction with the development of generating sources and system-wise electric networks of the UPS of Kazakhstan;

Unique experience in designing the electric power system of the Republic of Kazakhstan using the latest achievements and planning methods, fundamental knowledge and progressive approaches of specialists with international certificates and specialized degrees from leading universities of Kazakhstan (JSC "Almaty University of Power Engineering and Telecommunications named Gumarbek Daukeyev"), Russia (National Research University "Moscow Power Engineering Institute"), (St. Petersburg and Peter the Great St. Petersburg Polytechnic University, Tomsk Polytechnic University) and the USA (Arizona State University);

Up-to-date systematic information on the current state and future development of 35-500 kV electric networks of UPS of Kazakhstan, industrial enterprises, transportation infrastructure and power plants, cities and towns. All our studies are performed using modern licensed software tools;

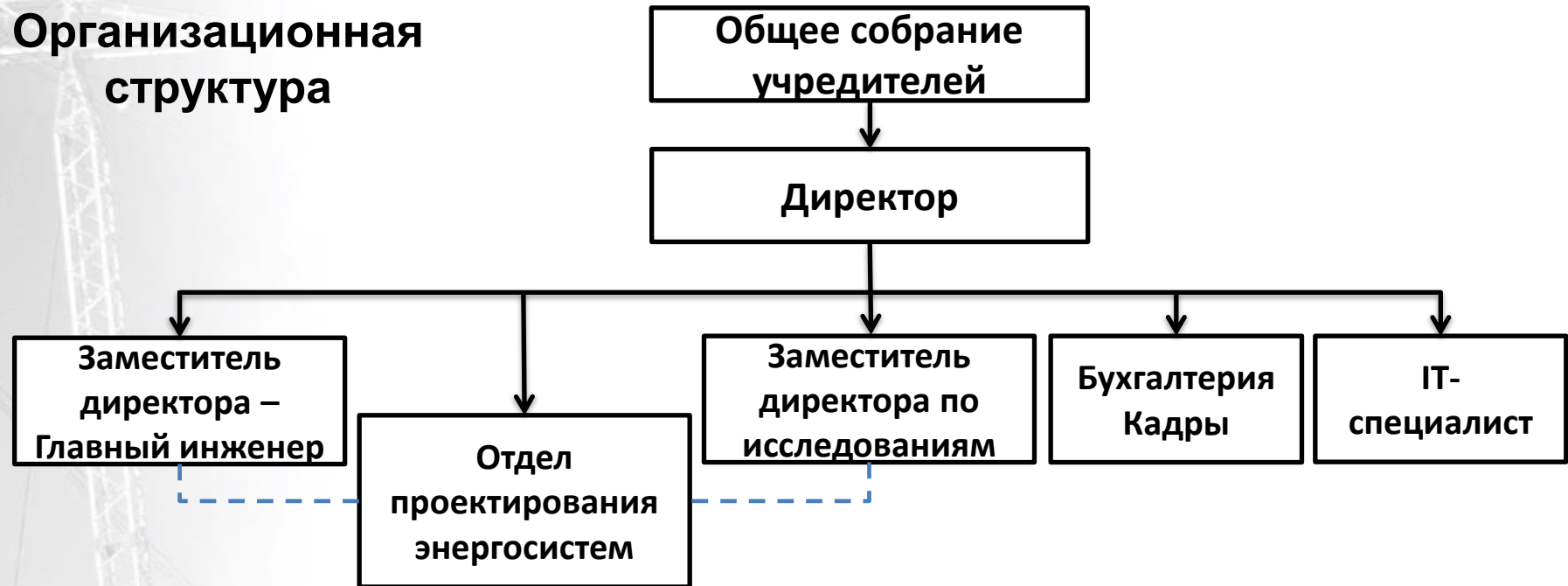
Experience in cooperation with foreign companies and partners, the ability to conduct business negotiations, correspondence and presentations in English;

Orientation and commitment for a final result, technical support of engineering solutions and decisions made up to the implementation stage and commissioning.

Our mission - Optimal solutions empowering the future

О компании (продолжение)

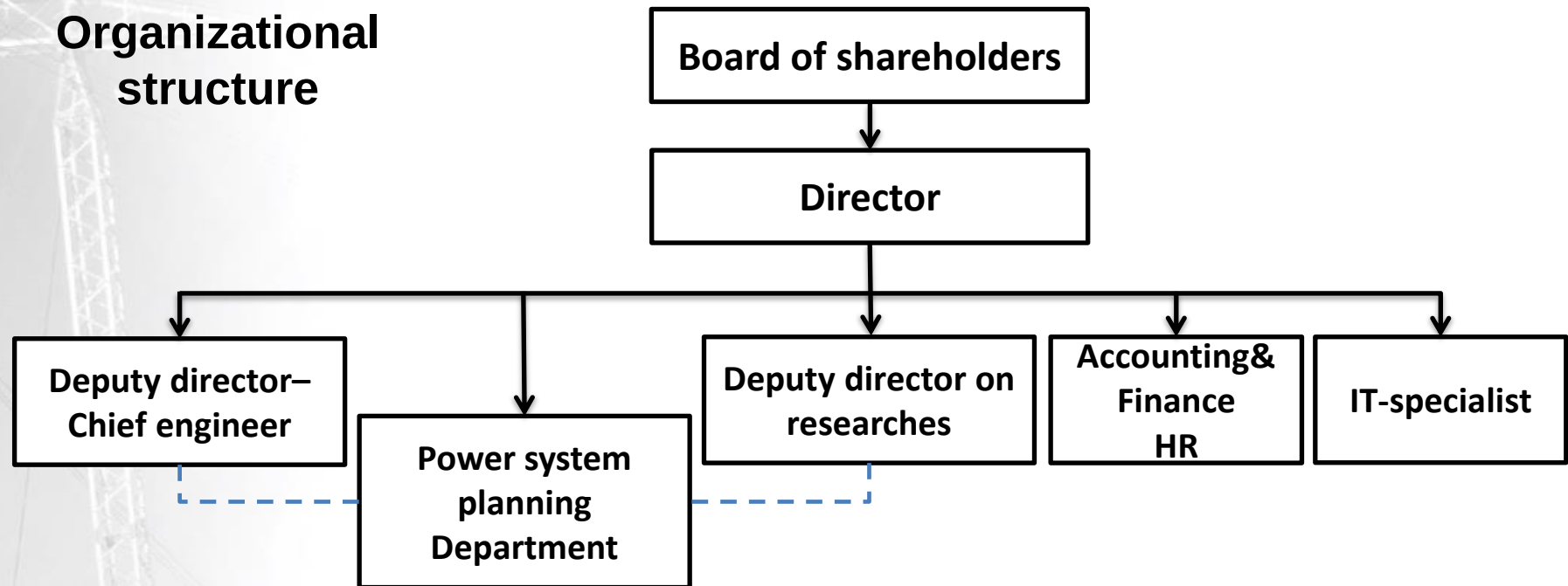
Организационная структура



- **Этичность, мотивация и вовлеченность сотрудников** обеспечивается "Кодексом поведения сотрудников", "Социальной политикой", "Программой добровольного медицинского страхования", "Бонусной политикой" и "Планом карьерного роста/преемственности";
- **Компетенции сотрудников** поддерживаются постоянными обучениями и семинарами по обмену опытом. Наши сотрудники регулярно проходят обучение по новым программным продуктам, а также методам планирования и анализа;
- **Международные проекты** постоянно ведутся нашей компанией на английском языке, наши сотрудники говорят и работают на государственном, русском и английском языках.

About us (continuation)

Organizational structure



- **Employee ethics, motivation and commitment** is maintained by the "Code of Conduct for Employees", "Social Policy", «Employer sponsored Health Insurance Program», "Bonus Policy" and "Career Development / Succession Plan";
- **Competencies of employees** are supported by ongoing trainings and experience exchange workshops. Our employees are regularly trained in new software products, as well as advanced planning and analysis methodologies;
- **International projects** are constantly conducted by our company in English, our employees speak and able to work in Kazakh, Russian and English languages.

О компании (продолжение)



Система менеджмента качества ISO 9001-2016



Государственная лицензия на ПИР 1-й категории

Менеджмент профессиональной безопасности ISO 45001-2019



Независимый аудит финансовой отчетности



Социальная политика для сотрудников



Кодекс поведения сотрудников

About us (continuation)

Quality Management System ISO 9001-2016



Health&Safety Management system OHSAS 18001-2008

Independent Audit of Financial Statements



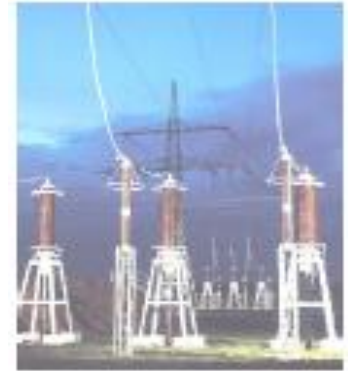
Social policy for employees



Employee Code of Conduct

Основные виды деятельности

- ❑ **Маркетинговые исследования** и прогнозирование уровней электропотребления, электрических нагрузок, развития электрических станций, балансов электрической мощности и энергии и другие;
- ❑ **Развитие электрических сетей 35 кВ и выше** промышленных предприятий, городов и областей, сетей 220 кВ и выше ЕЭС Казахстана;
- ❑ **Схемы выдачи электрической мощности** электростанций как традиционных (КЭС, ТЭЦ, ГТЭС, ПГУ, ГЭС), так и возобновляемых (малых ГЭС, ВЭС и СЭС и др.);
- ❑ **Схемы внешнего электроснабжения** промышленных предприятий, месторождений и горно-обогатительных комбинатов, электрифицируемых участков железных дорог, магистральных нефте- и газопроводов, водоканалов;
- ❑ **Технико-экономические обоснования** строительства электросетевых объектов и возобновляемых источников энергии;
- ❑ **Исследования электрических явлений** в промышленных и распределительных сетях, микро-энергосистемах (электромагнитные и электромеханические переходные процессы, проблемы устойчивости параллельной и изолированной работы, квазистационарных и коммутационных перенапряжений),
- ❑ **Обосновывающие расчеты по Интеграции (устойчивой работе) ВИЭ в энергосистеме.**



Main activities

- ❑ **Marketing research and future demand forecasting** of electricity consumption, electrical loads, development of generation, electric power and energy balances elaboration etc;
- ❑ **Grid expansion planning** (35 kV and above) for industrial enterprises, cities and regions, 220 kV and above networks of UPS of Kazakhstan;
- ❑ **Grid connection schemes** elaboration for power plants, both traditional (TPPs, CHPs, GTPPs, CCGTs, HPPs), and renewable energy sources (small HPPs, wind farms and solar power plants, etc.);
- ❑ **External power supply schemes** for industrial enterprises, deposits and mining&processing enterprises, electrified traction, oil and gas pipelines, water carrying facilities;
- ❑ **Feasibility studies** elaboration for the construction of electrical grid infrastructure and renewable energy sources;
- ❑ **Electrical and system studies** in industrial and distribution networks, micro-energy systems (electromagnetic and electromechanical transients, transient stability of parallel and isolated operation, quasi-stationary and switching overvoltage),
- ❑ **Justifying calculations on the Integration (stable operation) of renewable energy sources in UPS of Kazakhstan.**



Наши инструменты



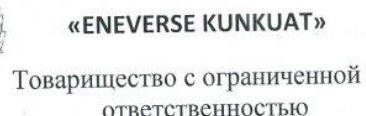
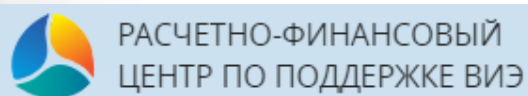
№	Виды расчетов	Используемые Программы
1 	Потокораспределение и уровни напряжения, потери, апериодическая статическая устойчивость и устойчивость нагрузочных узлов, оптимизация режимов работы электрических сетей. Установившиеся значения токов одно- и многократных коротких замыканий с учетом реальных ЭДС и взаимных углов.	RastrWin RastrTKZ (Россия)
2 	Электрические режимы и потери электроэнергии, расчеты апериодической статической и динамической устойчивости, позволяет моделировать продвинутые сетевые элементы (частотные преобразователи ВИЭ, HVDC, FACTS и т.д.).	PSS/E (США)
3 	Электрические режимы и потери электроэнергии, расчеты апериодической статической и динамической устойчивости, позволяет моделировать продвинутые сетевые элементы (частотные преобразователи ВИЭ, HVDC, FACTS и т.д.).	Power Factory (Германия)
4 	Производительность ветровых электростанций, оптимизация размещения ветровых турбин в пределах заданной площадки, статистическая обработка данных измерений ветрового потенциала и построение ресурсных карт.	WindPRO WAsP (Дания)
5 	Планирование, моделирование, оптимизация и анализ эффективности работы солнечных электростанций с учётом географического расположения и климатических условий конкретной площадки, типа применяемого оборудования, ориентации солнечных панелей, естественных и искусственных препятствий.	PVsyst (Швейцария)
6 	Высокоуровневая оценка возможных альтернатив развития электроэнергетической отрасли, выбросов парниковых газов, требуемых затрат для различных сценариев развития экономики и макроэкономических показателей.	LEAP (Швеция)

Our Analytic tools

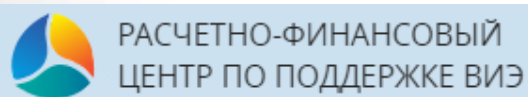


No	Types of Calculations	Used Programs
1 	Flow distribution and voltage levels, losses, aperiodic static stability and stability of load nodes, optimization of operating modes of electric networks. The steady-state values of currents of single and multiple short circuits taking into account real EMF and mutual angles.	RastrWin RastrTKZ (Russia)
2 	Electric modes and energy losses, calculations of aperiodic static and dynamic stability, allows you to simulate advanced network elements (frequency converters RES, HVDC, FACTS, etc.).	PSS/E (USA)
3 	Electric modes and energy losses, calculations of aperiodic static and dynamic stability, allows you to simulate advanced network elements (frequency converters RES, HVDC, FACTS, etc.).	Power Factory (Germany)
4 	The productivity of wind power plants, the optimization of the location of wind turbines within a given site, the statistical processing of wind potential measurement data and the construction of resource maps.	WindPRO WAsP (Denmark)
5 	Planning, modeling, optimization and analysis of the efficiency of solar power plants, taking into account the geographical location and climatic conditions of a particular site, the type of equipment used, the orientation of solar panels, natural and artificial obstacles.	PVsyst (Швейцария)
6 	High-level assessment of possible alternatives for the development of the electric power industry, greenhouse gas emissions, required costs for various economic development scenarios and macroeconomic indicators.	LEAP (Sweden)

Наши Заказчики (начало)



Our Customers (beginning)



«ЕНЕВЕРСЕ КУНКУАТ»
Товарищество с ограниченной
ответственностью



РЕСПУБЛИКА КАЗАХСТАН
Акционерное общество
«Институт «КазНИПИЭнергопром»



Наши Заказчики (продолжение)



TOO «КАЭС»



TOO «Гиперборея»



Hub Energy



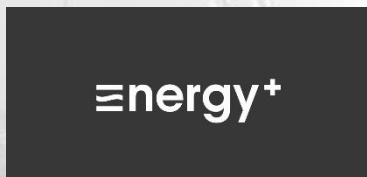
MINERAL
PRODUCT
INTERNATIONAL



ALCOR ENERGY



TOO «МТ и К»



Our Customers (continuation)



TOO «КАЭС»



TOO «Гиперборея»



Hub Energy



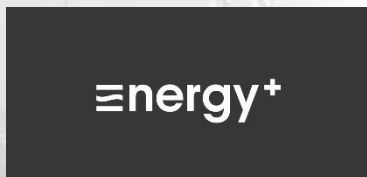
MINERAL
PRODUCT
INTERNATIONAL



ALCOR ENERGY



TOO «МТ и К»



Наши проекты (начало)



Перечень последних выполненных работ (по состоянию на Январь 2023 года)																			
№	Наименование проекта	Год	Статус	№	Наименование проекта	Год	Статус	№	Наименование проекта	Год	Статус	№	Наименование проекта	Год	Статус	№	Наименование проекта	Год	Статус
1	Схема выдачи электрической мощности в районе Шенгели ГЭС	2011	Согласована с АО «КЕРОС» и АО «АИ» и утверждена ММТ РК	10	«Схема внешнего электроснабжения месторождения (Полюсовское) в Юкатской области»	2013	Согласована с АО «КЕРОС». Выданы ТУ АО «КЕРОС»	18	Схема присоединения ветровой электростанции мощностью 100 МВт на площадке близ реки Шенгели в Юкатской области	2014	Согласована с АО «КЕРОС» и АО «АИ». Выданы ТУ АО «КЕРОС»	26	Разработка Технического задания на проектирование строительства ветряного терминала в районе Шенгели в Юкатской области	2015	Работа завершена и выданы чертежи. Заключен	36	Схема выдачи мощности и технико-экономическое обоснование СЭС мощностью 40 МВт на площадке «Гришань» в Юкатской области	2015	Схема согласована с АО «КЕРОС» и АО «АИ». Выданы ТУ, получены положительные технические заключения РПТ и «Госэнергонадзора»
2	Схема выдачи электрической мощности ВЭС мощностью 40 МВт на площадке Алашань	2011	Согласована с АО «КЕРОС» и АО «АИ» и утверждена ММТ РК. Выданы ТУ АО «КЕРОС»	11	Рабочий проект ВП 500 кВт Эмбасулуская - Селая ГЭС	2013	Получено положительное заключение РПТ и «Госэнергонадзора»	20	«Схема выдачи мощности солнечной электростанции 2 МВт в районе села Батум Мушкетерского района Магистральной области»	2014	Согласована с АО «КЕРОС», МАКЗ Кабинет и утверждена ММТ РК. Выданы ТУ МАКЗ Кабинет	27	Технико-экономическое обоснование ВЭС мощностью 10 МВт на площадке близ реки Алашань	2015	Получено положительное заключение РПТ и «Госэнергонадзора»	37	Схема выдачи мощности и технико-экономическое обоснование Второй очереди расширения на 50 МВт СЭС Буровая в Жамбылской области	2015	Схема согласована с АО «КЕРОС» и АО «АИ». Выданы ТУ, получены положительные заключения РПТ и «Госэнергонадзора»
3	ТЭО «Строительство ВЭС мощностью 48 МВт на площадке близ реки Алашань в Алашаньской области»	2011	Получено положительное заключение РПТ и «Госэнергонадзора». Утвержден предварительный проект	12	Реализация программы по энергетической эффективности и охране (КВЭТ) / Проверка условий работы электросетей сетей Селево Кабинет, Буровая и Тахтинская в рамках проекта CASA-1000	2013	Финансовый отчет согласован и утвержден USAID и советом CASA	21	«Схема выдачи мощности солнечной электростанции 5 МВт в районе села Батум Тупар-Тарканского района Магистральной области»	2014	Согласована с АО «КЕРОС», ТМТ Магистральный и утверждена ММТ РК. Выданы ТУ ТМТ Магистральный	28	Схема внешнего электроснабжения БСН-687 (АО «Катеринск»)	2015	Согласована с АО «МРЭК», Выданы ТУ	38	Исследования по определению оптимального уровня развития ВИЭ при существующих условиях развития ВЭС Кабинет и в соответствии с условиями развития ВИЭ на долгосрочную перспективу	2015	Исследования завершены и одобрены Заключением АО «КЕРОС» и АО «АИ»
4	ТЭО «Строительство ВП 500 кВт в ЦРС - Авто-Ташкент. Авто-Ташкент»	2012	Получено положительное заключение РПТ и «Госэнергонадзора»	13	Схема присоединения ТЭЦ-3 мощностью 180 МВт в городе Селево в Юкатской области	2013	Согласована с АО «КЕРОС», АО «ВРЭК» и утверждена ММТ РК. Выданы ТУ АО «ВРЭК»	22	«Схема выдачи мощности ветровой электростанции 5 МВт в районе села Амурар Мушкетерского района Магистральной области»	2014	Согласована с АО «КЕРОС» и АО «АИ». Выданы ТУ АО «КЕРОС»	29	Схема выдачи мощности кооператива ГЭС 24,8 МВт на реке Тейке в Районном районе Алашаньской области	2015	Согласована с АО «КЕРОС», АО «АИ» и утверждена ММТ РК	39	Разработка проектного баланса энергетической энергии и мощности ЕЭС Казахстана на период 2015-2022 года и перспективный до 2025, 2030 года	2016	Разработка проектного баланса энергетической энергии и мощности ЕЭС Казахстана на период 2015-2022 года и перспективный до 2025, 2030 года
5	«Корректировка схемы присоединения электростанции Амур ТЭО к электросети в Алашаньской области»	2012	Согласована с АО «КЕРОС» и утверждена ММТ РК. Выданы ТУ АО «КЕРОС»	14	Технико-экономическое обоснование «Строительство магистральной линии электропередачи 500 кВ Кабинет - Кызылсай»	2014	Получено положительное заключение РПТ и «Госэнергонадзора»	23	Схема внешнего электроснабжения НТС-663 (АО «Катеринск»)	2014	Согласована с АО «КЕРОС» и АО «АИ». Выданы ТУ АО «КЕРОС»	30	Схема выдачи мощности кооператива ГЭС 37,9 МВт на реке Байкент в Районном районе Алашаньской области	2015	Согласована с АО «КЕРОС», АО «АИ» и утверждена ММТ РК	40	Схема выдачи мощности и технико-экономическое обоснование ВЭС мощностью 30 МВт в Юкатской области	2016	Схема согласована с АО «КЕРОС» и АО «АИ». Выданы ТУ, получены положительные заключения РПТ и «Госэнергонадзора»
6	«Схема выдачи мощности ГЭС мощностью 200 МВт и устье Заряд-Казахстанской области»	2013	Согласована с АО «КЕРОС» и утверждена ММТ РК. Выданы ТУ АО «КЕРОС»	15	Проектирование Технико-экономическое обоснование «Объединение электросетей Западного Казахстана с ЕЭС Казахстана»	2014	Финансовый отчет принят Заключением АО «КЕРОС»	24	Схема внешнего электроснабжения НТС-663 (АО «Катеринск»)	2014	Согласована с АО «КЕРОС» и АО «АИ». Выданы ТУ АО «КЕРОС»	31	Схема выдачи мощности и технико-экономическое обоснование ВЭС мощностью 30 МВт на площадке Фор-Шенгели в Магистральной области	2015	Схема согласована с АО «КЕРОС», АО «МРЭК», Выданы ТУ, получены положительные заключения РПТ и «Госэнергонадзора»	41	Схема выдачи мощности и технико-экономическое обоснование СЭС Капшагал-Солтис мощностью 50 МВт в Алашаньской области	2016	Схема согласована с АО «КЕРОС» и АО «АИ». Выданы ТУ, получены положительные заключения РПТ и «Госэнергонадзора»
7	«Схема присоединения ветровой электростанции мощностью 48 МВт в районе села 96 МВт на площадке близ реки Алашань в Алашаньской области»	2013	Согласована с АО «КЕРОС» и утверждена ММТ РК. Выданы ТУ АО «КЕРОС»	16	Схема внешнего электроснабжения нефтегазового месторождения Амурар в Юкатской области	2014	Согласована с АО «КЕРОС» и утверждена ММТ РК. Выданы ТУ АО «КЕРОС»	25	Схема выдачи мощности ветровой электростанции 10 МВт на площадке близ реки Алашань в Алашаньской области	2014	Согласована с АО «КЕРОС» и утверждена ММТ РК. Выданы ТУ АО «КЕРОС»	32	Схема внешнего электроснабжения объектов топливной фабрики для переработки сырья Кошарского месторождения золота в городе Жанар-Жуар	2015	Согласована с АО «КЕРОС» и АО «АИ». Выданы ТУ АО «КЕРОС»	42	Схема выдачи мощности ветровой электростанции 4,8 МВт в районе близ реки Алашань в Алашаньской области	2016	Схема согласована с АО «КЕРОС» и АО «АИ». Выданы ТУ, получены положительные заключения РПТ и «Госэнергонадзора»
8	«Схема присоединения ветровой электростанции мощностью 18 МВт в Юкатской области»	2013	Согласована с АО «КЕРОС» и утверждена ММТ РК. Выданы ТУ АО «КЕРОС»	17	Схема присоединения ветровой электростанции мощностью 100 МВт на площадке близ реки Алашань в Алашаньской области	2014	Согласована с АО «КЕРОС» и утверждена ММТ РК. Выданы ТУ АО «КЕРОС»	26	Схема выдачи мощности ветровой электростанции 10 МВт на площадке близ реки Алашань в Алашаньской области	2015	Согласована с АО «КЕРОС» и утверждена ММТ РК. Выданы ТУ АО «КЕРОС»	33	Схема выдачи мощности ГЭС-2 на реке Тейке в Алашаньской области	2015	Согласована с АО «КЕРОС» и АО «АИ». Выданы ТУ АО «КЕРОС»	43	Схема выдачи мощности ветровой электростанции 4,8 МВт в районе близ реки Алашань в Алашаньской области	2016	Схема согласована с АО «КЕРОС» и АО «АИ». Выданы ТУ, получены положительные заключения РПТ и «Госэнергонадзора»
9	Схема выдачи мощности кооператива ГЭС мощностью 180 МВт в районе близ реки Алашань в Алашаньской области	2013	Согласована с АО «КЕРОС» и утверждена ММТ РК. Выданы ТУ АО «КЕРОС»					27	Схема выдачи мощности ветровой электростанции 10 МВт на площадке близ реки Алашань в Алашаньской области	2015	Согласована с АО «КЕРОС» и утверждена ММТ РК. Выданы ТУ АО «КЕРОС»	34	Схема выдачи мощности ГЭС-2 на реке Тейке в Алашаньской области	2015	Согласована с АО «КЕРОС» и АО «АИ». Выданы ТУ АО «КЕРОС»	44	Схема выдачи мощности ветровой электростанции 4,8 МВт в районе близ реки Алашань в Алашаньской области	2016	Схема согласована с АО «КЕРОС» и АО «АИ». Выданы ТУ, получены положительные заключения РПТ и «Госэнергонадзора»

• На январь 2025 года компанией выполнено более 168 проектов, по каждому из них получен положительный результат (утверждение, согласование, технические условия, положительное заключение вневедомственной экспертной).

Our projects (beginning)



List of relevant projects completed by our team
(as of January 2025)

Nº	Project name	Year	Results
1	Grid connection study of cascade of Sherep HVPS Customer: KAZHYROD LLP	2011	Approved by KEEOC JSC, AZHJ JSC, MNT Rsk
2	Grid connection study of WPP with installed capacity of 48 MW on Aralysk site Customer: SYNERGY ASTANA LLP	2011	Approved by KEEOC JSC, MNT Rsk, technical conditions are issued by KEEOC
3	Feasibility study for the construction of WPP with installed capacity of 48 MW on Aralysk site Customer: SYNERGY ASTANA LLP	2011	Approved by ROP "Gosenergizh" and MNT Rsk, in-dividual tariff is defined
4	Feasibility study "Construction of OHTL 500 kV Semey - Aktogay - Taldykorgan - Almaty" Customer: EnergyGidProekt LLP	2012	Approved by "RGP "Gosenergizh"
5	Grid connection study of App KCO GTPP in Almaty region Customer: KAZNPENERGOPROM JSC	2012	Approved by KEEOC JSC, MNT Rsk, technical conditions are issued by KEEOC
6	Grid connection study of Ustak GTPP with installed capacity of 200 MW in West Kazakhstan region Customer: Batys Power LLP	2013	Approved by KEEOC JSC, MNT Rsk, technical conditions are issued by KEEOC
7	Grid connection study of Badamova WPP with installed capacity of 48 MW and future expansion to 88 MW in Aktobe region Customer: SYNERGY ASTANA LLP	2013	Approved by KEEOC JSC, MNT Rsk, technical conditions are issued by KEEOC
8	Grid connection study of Mera HVPS with installed capacity of 18 MW in Zharkent region Customer: Tazas Green Power GENCO LLP	2013	Approved by KEEOC JSC, MNT Rsk, technical conditions are issued by KEEOC
9	Grid connection study of Kolkhatov CHP with installed capacity of 240 MW in Almaty region Customer: local authority - Almaty of Almaty region	2013	Approved by KEEOC JSC, MNT Rsk

Nº	Project name	Year	Results
10	External power supply study of Lomonosovskaya cascade in Kostanay region Customer: Lomonosovskaya LLP	2013	Approved by KEEOC JSC, technical conditions are issued by KEEOC
11	Detailed design of 500 kV OHTL, Ekibastuzskaya-Semey (line length 400 km) Customer: EnergyGidProekt LLP	2013	Approved by KEEOC JSC, Approved by ROP "Gosenergizh"
12	Analysis of Steady-State and Transient Stability of the Parallel Operation of Power Systems of the Kyrgyz Republic and the Republic of Tajikistan under CASA-1000 Project Customer: TETRA TECH on behalf of USAID	2013	Final report is accepted and approved by USAID
13	Grid connection study of Semey CHP-3 with installed capacity of 150 MW in Akmola region Customer: Samruk-Energy LLP	2013	Approved by KEEOC JSC, VIREK JSC, MNT Rsk, technical conditions are issued by VIREK JSC
14	Feasibility study for the construction of 500 kV cross border OHTL Kazakhstan-Kyrgyzstan Customer: KEEOC JSC	2014	Approved by ROP "Gosenergizh"
15	Pre-feasibility study for the connection of West Kazakhstan power system with UPS of Kazakhstan Customer: KEEOC JSC	2014	Pre-FS is approved by the customer - KEEOC JSC
16	External power supply study of Arystan Oilfields depot in Kyrgyzstan region Customer: PetroKazakhstan Kurum Resources JSC	2014	Approved by KEEOC JSC, technical conditions are issued by KEEOC
17	Grid connection study of Badamova WPP with installed capacity of 100 MW in Aktobe region Customer: EUROFINSA KZ LLP	2014	Approved by KEEOC JSC and ME Rsk, technical conditions are issued by KEEOC
18	Grid connection study of Shapov WPP with installed capacity of 100 MW in South Kazakhstan region Customer: EUROFINSA KZ LLP	2014	Approved by KEEOC JSC and ME Rsk, technical conditions are issued by KEEOC

Nº	Project name	Year	Results
19	Grid connection study of Baty SPP with installed capacity of 2 MW in Mangystau region Customer: Group Independent LLP	2014	Approved by KEEOC JSC, MEK-Kazakhstan LLP and ME Rsk, technical conditions are issued by MEK-Kazakhstan LLP
20	Grid connection study of Baty SPP with installed capacity of 1 MW in Mangystau region Customer: Best Group NS LLP	2014	Approved by KEEOC JSC, MEK-Kazakhstan LLP and ME Rsk, technical conditions are issued by MEK-Kazakhstan LLP
21	Grid connection study of Akshauk WPP with installed capacity of 150 MW in Akmola region Customer: Best Group NS LLP	2014	Approved by KEEOC JSC, MEK-Kazakhstan LLP and ME Rsk, technical conditions are issued by MEK-Kazakhstan LLP
22	External power supply study of NPS-663 (Kazakhstan) TSP grid connection objects Customer: Elektrosvyaz LLP	2014	Approved by KEEOC JSC and Caspian Pipeline Consortium JSC, technical conditions are issued by Caspian Pipeline Consortium JSC
23	Feasibility study for the construction of Balkhash-TSP grid connection objects Customer: KEEOC JSC	2014	Approved by ROP "Gosenergizh"
24	Grid connection study of Zhanchok GTPP feeding Gas Processing Unit #5 in Aktobe region Customer: CHPC-Kazakhstan LLP	2014	Approved by KEEOC JSC and ME Rsk
25	Grid connection study of Gas feed power plant "L2 MW on North-West Fyrtulysk Oilfields deposit" Customer: PetroKazakhstan Kurum Resources JSC	2014	Approved by KEEOC JSC and ME Rsk
26	Elaboration of preliminary feasibility study for construction of GTPP in Aktobe region Customer: Turkmen Invest LLP	2015	Approved by the Customer
27	Feasibility study for the construction of WPP with installed capacity of 48 MW on Badamova site Customer: Aram Windco LLP	2015	Approved by ROP "Gosenergizh"

Nº	Project name	Year	Results
28	External power supply study of VAG-667 (Kazakhstan) water pumping station Customer: Elektrosvyaz LLP	2015	Approved by distribution system operator - MREK JSC, technical conditions are issued
29	Grid connection study of 24 MW small hydro power plants cascade on Teles river in Rayymbek district of Almaty region Customer: «KazGidrotKazakhstan» LLP	2015	Approved by KEEOC JSC, AZHJ JSC and ME Rsk
30	Grid connection study of 37.5 MW small hydro power plants cascade on Baygynsk river in Rayymbek district of Almaty region Customer: «KazGidrotKazakhstan» LLP	2015	Approved by KEEOC JSC and AZHJ JSC
31	Grid connection study and Feasibility study for the construction of WPP with installed capacity of 50 MW on East-Shevchenko site in Mangystau region Customer: «CM Green Energy» LLP	2015	Grid connection study approved by KEEOC JSC, MREK JSC and ME Rsk, technical conditions were issued, FS approved by ROP "Gosenergizh"
32	External power supply study of Karamanovskiy gold deposit concentrator plant in Zhelkinka town of Kostanay region Customer: «ASPMK-519» LLP	2015	Approved by KEEOC JSC
33	Grid connection study of small HPP-2 on Laypy river in Almaty region Customer: «GES Laypy-2» LLP	2015	Approved by KEEOC JSC and TATEK JSC
34	Grid connection study of small HPP on Kora river in Almaty region Customer: «Korayskaya GES» LLP	2015	Approved by KEEOC JSC and Kantar-Transit LLP
35	Feasibility study for Badamova WPP with installed capacity of 48 MW in Aktobe region Customer: «ARM Windco» LLP	2015	FS approved by ROP "Gosenergizh"
36	Grid connection study and Feasibility study for the construction of SPP with installed capacity of 48 MW on Oulshai site in Kurgandinsk region Customer: «ARM Oulshai» LLP	2015	Grid connection study approved by KEEOC JSC, ZHREK JSC, technical conditions issued, FS approved by ROP "Gosenergizh"

Nº	Project name	Year	Results
37	Grid connection study and Feasibility study for the second stage (50MW expansion) of SPP on Kostanay site in Zhambyl region Customer: «United Green Energy Limited»	2015	Grid connection study approved by KEEOC JSC, technical conditions issued, FS approved by ROP "Gosenergizh"
38	Research on Renewable energy integration capabilities of the Kazakhstan power system at current and future prospects Customer: «KEEOC» JSC	2015	Research results approved by the customer «KEEOC» JSC and ME Rsk
39	Power and energy balance of the Kazakhstan power system for 2016-2025 period with long term future prospects till 2025, 2030 Customer: «KEEOC» JSC	2016	Balance approved by the customer «KEEOC» JSC
40	Grid connection study and Feasibility study for the 500MW SPP on Balkanov in Nurylda region Customer: «United Green Energy Limited»	2016	Grid connection study approved by KEEOC JSC, technical conditions issued, FS approved by ROP "Gosenergizh"
41	Grid connection study and Feasibility study for the 500MW SPP on Balkanov in Nurylda region Customer: «United Green Energy Limited»	2016	Grid connection study approved by KEEOC JSC, technical conditions issued, FS approved by ROP "Gosenergizh"
42	Grid connection study for 10 MW gas proton power plant GPES-ATU in West-Kazakhstan region Customer: «Condeminate» LLP	2016	Grid connection study approved by KEEOC JSC and Akmola electric grid company, technical conditions issued
43	Grid connection study for 4.5 MW WPP in Kapchagay Almaty region Customer: «ANNA» LLP	2016	Grid connection study approved by KEEOC JSC, technical conditions issued
44	Detailed design of 500 kV OHTL, Semey - Aktogay (line length 400 km) Customer: KEEOC JSC	2016	Approved by KEEOC JSC, Approved by ROP "Gosenergizh"
45	Grid connection study for 4.5 MW WPP in Nurylda region Customer: «Nurylda WPP» LLP	2016	Grid connection study approved by KEEOC JSC and AZHJ JSC, technical conditions issued

Nº	Project name	Year	Results
46	Technical-economic research for construction of solar power plant near the city of Zhymkent Customer: «Bumbe Solar-1» LLP	2016	Final report is accepted by the Customer.
47	External power supply study for gold mining complex RD Gold in Akmola region Customer: "RD Gold" LLP	2016	Approved by KEEOC JSC, technical conditions issued
48	External power supply study for ore mining/processing complex Masatseke in Akmola region Customer: "Kazgiprovetmet" LLP	2016	Approved by KEEOC JSC, technical conditions issued
49	Grid connection study and Feasibility study for the 100 MW SPP Kapchagay in Almaty region Customer: «ENERVERSE KUNUKUAT» LLP	2017	Grid connection study approved by KEEOC JSC, technical conditions issued, FS approved by ROP "Gosenergizh"
50	External power supply study and feasibility study for external power supply objects for metallurgical complex based on Masatseke iron ore deposit in Akmola region Customer: "Kazgiprovetmet" LLP	2017	Grid connection study approved by KEEOC JSC, technical conditions issued, FS approved by ROP "Gosenergizh"
51	Grid connection study and Feasibility study for the 16 MW SPP Burzhar in South-Kazakhstan region Customer: «United Green Energy Limited»	2017	Grid connection study approved by KEEOC JSC and OZIL LLP, technical conditions issued, FS approved by out-of-departmental expertise
52	Elaboration of external power supply options for Kazakhstan hydro-metallurgical company assets with future prospects Customer: «Kazakhstan Technology» LLP	2017	Final report is accepted by the Customer.
53	Grid connection study for 4.5 MW WPP Nuryl-2 in Almaty region Customer: «Nuryl-2 WPP» LLP	2017	Grid connection study approved by KEEOC JSC and AZHJ JSC, technical conditions issued

Nº	Project name	Year	Results
54	Grid connection study for Rudnichnyy HPP in Karabulak district Almaty region Customer: «ASPMK-519» LLP	2017	Grid connection study approved by KEEOC JSC and Kantar-Transit LLP, technical conditions issued
55	Grid connection study for SPP Shalkiya in Kyzylorda region Customer: «Shalkiya Solar (Ilancon Company) LLP	2017	Grid connection study approved by KEEOC JSC, technical conditions issued
56	Grid connection study for 30.4 MW gas piston power plant in Zhayybas Mangystau region Customer: «OralMunaProm» LLP	2017	Grid connection study approved by KEEOC JSC and MREK JSC, technical conditions issued
57	Detailed design for the second stage (50 MW extension) of Burnee Solar Power Plant in Zhambyl region Customer: «United Green Energy Limited»	2017	Detailed design is finalized and approved by out-of-departmental expertise. Construction is finalized.
58	Grid connection study and Feasibility study for the waste treatment gas piston power plant in the city of Kengir Kurgandinsk region Customer: «Kazakhstan SarlatyProekt» LLP	2017	Grid connection study approved by KEEOC JSC and ZHREK LLP, technical conditions issued, FS approved by ROP "Gosenergizh"
59	Actualization of power and energy balance for power system of the Republic of Kazakhstan with future prospects till 2019-2025 and 2030 Customer: «KEEOC» JSC	2017	Actualized power and energy balance was approved by Ministry of Energy (order №475 dated 25.12.2017)
60	Grid connection study for HPP-2 on Chizha river in Almaty region Customer: «ASPMK-519» LLP	2017	Grid connection study approved by KEEOC JSC and Kantar-Transit LLP, technical conditions issued
61	Grid connection study for 19 MW SPP in Zhambyl region Customer: «Aqyrtube Solar» LLP	2018	Grid connection study approved by KEEOC JSC and Zhambyl Electric Grid LLP, technical conditions issued
62	Grid connection study for 5 MW SPP in Zhambyl region Customer: «Zhaigytube Solar» LLP	2018	Grid connection study approved by KEEOC JSC and Zhambyl Electric Grid LLP, technical conditions issued

Nº	Project name	Year	Results
63	Grid connection study and a part of Feasibility study for waste utilization plant in Kengir village of Kurgandinsk region Customer: «Kazakhstan SarlatyProekt» LLP	2018	Grid connection study approved by KEEOC JSC and Zhezhazgan Electric Grid LLP, technical conditions issued, Feasibility study is approved by ROP "Gosenergizh"
64	Detailed design for 14 MW Zadyaya Solar Power Plant in South-Kazakhstan region Customer: «KazGreenTeldis» LLP	2018	Detailed design is finalized and approved by out-of-departmental expertise
65	Grid connection study and a part of Feasibility study for Karayevskiy gold extracting plant in Akolga district of Kurgandinsk region Customer: «AK Altyrmas» JSC	2018	Grid connection study approved by KEEOC JSC and Kazakhstan Electricity Grid LLP, technical conditions issued, Feasibility study is approved by ROP "Gosenergizh"
66	Grid connection study and a part of Feasibility study for copper extracting plant in Ayagay district of East-Kazakhstan region Customer: «ASPMK-519» LLP	2018	Grid connection study approved by KEEOC JSC and East-Kazakhstan Electricity Grid LLP, technical conditions issued, Feasibility study is approved by ROP "Gosenergizh"
67	Detailed design for 50 MW Balkovskiy Solar Power Plant in Kyzylorda region Customer: «United Green Energy Limited»	2018	Detailed design is finalized and approved by out-of-departmental expertise
68	Grid connection study of Feasibility study "Reinforcement of West-Kazakhstan zone transmission grid" Customer: «EnergyGidProekt» LLP	2018	Feasibility study is finalized and approved by ROP "Gosenergizh"
69	Grid connection study and a part of Feasibility study for 1st grade iron production plant in Kostanay region Customer: «KHTNO» LLP	2018	Grid connection study approved by Kostanay Electric Grid LLP, technical conditions issued

Nº	Project name	Year	Results
70	Peer review of the assessment report on current state of the emergency automatic protection system (EAPS) in Tajikistan due to cross-border interconnection needs with Uzbekistan Customer: "KECOTI LLC (on behalf of USAID)"	2018	Report is finalized and approved by USAID and stakeholders
71	Grid connection study for 40 MW SPP in Pavlodar district of Almaty region Customer: «BU Kazakhstan» LLP	2018	Grid connection study approved by KEEOC JSC and Managing Company Korgos East Gates LLP, technical conditions issued
72	Grid connection study for Zharen extracting plant in Kurgandinsk region Customer: «ASPMK-519» LLP	2018	Grid connection study approved by KEEOC JSC and Zhezhazgan Electric Grid LLP, technical conditions issued
73	Grid connection study for 3 MW SPP in Kapchagay city of Almaty region Customer: «TechnoBazalt» LLP	2018	Grid connection study approved by KEEOC JSC and Aktobe electric grid company, technical conditions issued
74	Actualization of power and energy balance for power system of the Republic of Kazakhstan with future prospects till 2019-2025 and 2030 Customer: «KEEOC» JSC	2018	Actualized power and energy balance was approved by Ministry of Energy (order №10 dated 14.01.2019)
75	Detailed design for 100 MW Nurgula Solar Power Plant near the city of Kapchagay in Almaty region Customer: «ENERVERSE KUNUKUAT» LLP	2019	Detailed design is finalized and approved by out-of-departmental expertise
76	Grid connection study for 4.5 MW WPP in Kostanay region Customer: «ZHEL ELECTRIC» LLP	2019	Grid connection study approved by KEEOC JSC and Kostanay Electric Grid LLP, technical conditions issued
77	Grid connection study for 50 MW SPP in Almaty region Customer: «MISTRAL ENERGY» LLP	2019	Grid connection study approved by KEEOC JSC, technical conditions issued
78	Grid connection study for 100 MW WPP in Akmola region Customer: «ZHEL ELECTRIC» LLP	2019	Grid connection study approved by KEEOC JSC, technical conditions issued

Nº	Project name	Year	Results
79	Justifying calculations on power system integration of 4.8 MW WPP Fort-Shevchenko with power quality assessment Customer: «KT Rarremetall Company» LLP	2019	Justifying calculations coordinated with KEEOC JSC and Mangystau Electric Grid LLP.
80	Grid connection study for 50 MW SPP Alma in Almaty region Customer: «CORADO SERVICE GROUP» LLP	2019	Grid connection study approved by KEEOC JSC, technical conditions issued
81	Justifying calculations on power system integration of 100 MW Nurgula Solar Power Plant near the city of Kapchagay in Almaty region Customer: «ENERVERSE KUNUKUAT» LLP	2019	Justifying calculations coordinated with KEEOC JSC
82	Grid connection study for 0.6 MW small hydro power plant on Koltar river in Almaty region Customer: "Zharyk-Energy" LLP	2019	Grid connection study approved by KEEOC JSC and local electric grid company, technical conditions issued
83	Grid connection study for 100 MW WPP near Aktogay village in East-Kazakhstan region Customer: «ZHEL ELECTRIC» LLP	2019	Grid connection study approved by KEEOC JSC, technical conditions issued
84	Grid connection study for 4.95 MW WPP near Ermentau village in Akmola region Customer: "Ermentau WPP" LLP	2019	Grid connection study approved by KEEOC JSC and Akmola electric grid LLP, technical conditions issued
85	Grid connection study for 10 MW WPP Zhargai in Mangystau region Customer: "WPP Service" LLP	2019	Grid connection study approved by KEEOC JSC and Mangystau electric grid LLP, technical conditions issued
86	Grid connection study for second phase (48 MW extension) of existing Badamova 48 MW WPP in Aktobe region Customer: "TECHNICO ENGINEERING CONTRACTORS" LLP	2019	Grid connection study approved by KEEOC JSC, technical conditions issued
87	Grid connection study for Donskoy extracting plant in Akmola region Customer: "Baty Transil" JSC	2019	Grid connection study approved by KEEOC JSC, technical conditions issued

- As of January 2025, the company has completed about 168 projects, for each of them a positive result has been obtained (approval, agreement, technical conditions, positive conclusion of the non-departmental examination).

№	Наименование проекта	Год	Статус
123	Автоматизация системы оптимизации СЭС Шульце в объеме РП по Рамкам работы Заявки. "Евразий" LLP	2021	Строительство объектов в объеме Рамки работ завершено
124	Поставка оборудования для изготовления ТЭО с применением электронного баланса металлургического предприятия Заявки: "НПМ Valuation" LLC	2021	Исследование завершено и приняты Заявки
125	Прогнозный энергетический баланс Республи- ки Саха 2019 год Заявки: АО "КЕОС"	2021	Прогнозный баланс завер- шен и представлен КЕОС. М.Р.Н. КТМ.Р.
126	Корректировка схемы внешнего электроэко- номического месторождения Мем в Восточно-Ка- мчатской области Заявки: АО "АК Алтаис"	2021	Согласовано с ТОО "КазахТранс- Энерджи" и АО "КЕОС", выданы ТУ
127	Презентационная матрица по Проекту стро- ительства БЭС-1 (ТЭО) для техниче- ского обоснования данных в Республике Казах- стан Заявки: ТОО "Казах Энерджи Групп"	2021	Презентационная мате- рица разработана и принята Заявками
128	Технико-экономическое обоснование "Стро- ительстве возобновляемых (ВЭС) Заявки: ТОО "Какоор"	2022	ТЭО завершено и прин- ято Заявками
129	Выполнение технико-экономического обосно- вания "Строительство возобновляемого станции мощностью 103 МВт, располо- женной на территории Корпоративной Автомобильной области Заявки: АО "ТНХ Кавказ"	2022	Компьютерные расчеты завершены и приняты Заявками
130	Схема выдачи мощности Корпорации ТЭС-1 в область Заявки Заявки: ТОО "Коркорва ЭС"	2022	Схема согласована с АО "КЕОС", выданы ТУ
131	Схема выдачи мощности электростанции Косая Коса в Амурской области Заявки: "ОО "Камовангас" и "ОО "Строитель- ство Городской Косы"	2022	Схема согласована с АО "КЕОС", выданы ТУ
132	Схема выдачи мощности второй электрос- танции Косая Коса в Амурской области Заявки: "ОО "Камовангас" и "ОО "Строитель- ство Городской Косы"	2022	Схема согласована с АО "КЕОС", выданы ТУ

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Our projects (continuation)



No	Project name	Year	Results
88	Grid connection study for Logistic Hub in Ainaly region Customer: "Energy Store Company" LLP	2019	Grid connection study approved by KEGOC JSC, technical conditions issued
89	Pre-FS documentation for renewable energy in preparation to RES auction - 50 MW solar power plants near the village of Shaulder in Turkistan region Customer: UNCP Kazakhstan	2019	Based on Pre-FS documentation the 1st 2019 RES auction was successfully held
90	Author's supervision for the construction of Bakony SPP Customer: "Bakony Sota" LLP	2020	SPP was successfully built and commissioned
91	Grid connection study for PP Eurochem-Fertilizers-Karatau in Zhambyl region Customer: ASPMK-519 LLP	2020	Grid connection study approved by KEGOC JSC, technical conditions issued
92	Author's supervision for the construction of 14 MW Zaldary SPP in the city of Arys, Turkistan region Customer: "KazGreenTechSolar" LLP	2020	SPP was successfully built and commissioned
93	Detailed design of SPP 5 MW Arys in the Turkistan region Customer: Kazakhstan filial of URBASOLAR SAS	2020	Detailed design is finalized and approved by out-of-departmental expertise
94	External power supply study of Roder energy node Customer: ASPMK-519 LLP	2020	Grid connection study approved by KEGOC JSC and KEKOC JSC, technical conditions issued
95	Grid connection study for HPP at the Tasokel reservoir in the Shu district of the Zhambyl region Customer: LLP "Company A&T" energy	2020	Grid connection study approved by ZHES LLP and KEKOC JSC, technical conditions issued
96	Grid connection study for the southern pits of the site No. 2 "Torduk" of "Montkum" deposit "SP KATOC" LLP Customer: «ASPMK-519» LLP	2020	Grid connection study approved by "SP KATOC" LLP and KEKOC JSC, technical conditions issued

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No	Project name	Year	Results
97	Development and approval of a comprehensive testing program [1], full-scale testing program [2]. Execution of justifying calculations on power system integration of WPP Badamsha-1 with power quality assessment [3].	2020	Programs were approved by "KEGOC" JSC. The WPP was successfully commissioned.
98	Grid connection study for 50 MW WPP in the city of Ekibastuz, Pavlodar region Customer: "AMPERA" LLP	2020	Grid connection study approved by KEKOC JSC, technical conditions issued
99	Execution of justifying calculations on power system integration of SPP Bakony with power quality assessment into the power grid with an assessment of electricity quality indicators Customer: "Charkas Vatel" LLP	2020	Calculations approved by "KEGOC" JSC. The SPP was successfully commissioned.
100	Grid connection study for 6x4,95 MW WPP near Zhanga Tote village, Zhannymysk district, East Kazakhstan region Customer: "Charkas Vatel" LLP	2020	Grid connection study approved by VIKREK JSC and KEKOC JSC, technical conditions issued
101	Execution of justifying calculations on power system integration of SPP Zaldary with power quality assessment into the power grid with an assessment of electricity quality indicators Customer: "Kazakhstan SAS"	2020	Calculations approved by "KEGOC" JSC. The SPP was successfully commissioned.
102	External power supply study of the Benkashymy field due to increasing power consumption Customer: "Naryn Company-Benkar" JSC	2020	Grid connection study approved by MKRE LLP and KEKOC JSC, technical conditions issued
103	Grid connection options assessment within a framework of "Support of the Implementations of Wind Auctions in Kazakhstan" Customer: GOPA-International Energy Consultants GmbH	2020	The works are completed and accepted by the Customer

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No	Project name	Year	Results
104	"Proposals for possible Solar power plant sites and Wind power plant locations in the Republic of Kazakhstan" Customer: "BOC Consulting" LLP	2020	The works are completed and accepted by the Customer
105	Pre-feasibility study for the alternative energy sources implementation in the internal networks of the enterprises "Copper Company Kounrad" LLP and "Arys Katal" LLP Customer: "Copper Company Kounrad" LLP	2020	The works are completed and accepted by the Customer
106	"Grid connection arrangements assessment for «Wind clusters in Kazakhstan»" Customer: "WINDA SPP" LLP	2020	The works are completed and accepted by the Customer
107	External power supply study of Vaskovskoye GOK in Aktyubinsk region Customer: "WINDA SPP" LLP	2020	Grid connection study approved by KEKOC JSC, technical conditions issued
108	Feasibility assessment for the connection of small capacity distributed renewable energy sources to the electric grid in Turkistan region in the area of operation of "QDZIT" LLP Customer: UNCP Kazakhstan	2020	The works are completed and accepted by the Customer
109	Preparation of action documentation for SPP 20 MW in Kyzylorda and Turkistan regions Customer: «Financial Settlement Center of RE» LLP	2020	Grid connection study approved by KREK JSC, "QDZIT" LLP and KEKOC JSC, technical conditions issued. Auctions were successfully held in December 2020
110	Grid connection study for small hydro power plant on the Kuku river in the Ekimastinsky district of the Akmola region Customer: "Yastakhtenergi" LLP, KOKU LLP	2020	Grid connection study approved by KEKOC JSC and KEKOC JSC, technical conditions issued
111	Grid connection study for 10 MW WPP near the SS 500/220 KV Ashaluiy Customer: Torangy Energy LLP	2020	Grid connection study approved by KEKOC JSC, technical conditions issued
112	Grid connection study for 50 MW WPP near the village of Koyun in the Akmola region Customer: "Aym Wind" LLP	2020	Grid connection study approved by Akimastinsk REK JSC and KEKOC JSC, technical conditions issued

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No	Project name	Year	Results
113	Detailed design of a 48 MW and power plant near the city of Ainaly in Kostanay region Customer: "KazWindEnergy" LLP	2020	Detailed design was finalized and accepted by the Customer
114	Grid connection study for 10 and 5 MW WPPs near the village of Kogel in Akmola region Customer: "Aym Wind" LLP	2021	Grid connection study approved by AKMK JSC and KEKOC JSC, technical conditions issued
115	Grid connection study for 1st stage SPP Balkhash in Karaganda region Customer: "KazakhstanEnergy" LLP	2021	Grid connection study approved by Kazakhstan District LLP and KEKOC JSC, technical conditions issued
116	Electrical grid study on integration of WPP Badamsha 48 MW (Phase 2) Customer: "Aym Wind" LLP	2021	Based on the Electrical grid study obtained from KEKOC JSC, WPP commissioning was approved
117	Electrical grid study for connection of hybrid power plant in Zhirgen Customer: "Aym Wind" LLP	2021	Electrical grid study was finalized and accepted by the Customer
118	External power supply study for Donskoye GOK in Aktyubinsk region Customer: THK Kazchrome JSC	2021	Grid connection study approved by KEKOC JSC, technical conditions issued
119	"Preliminary feasibility study of outbalancing electricity from alternative energy sources in the internal networks of enterprises of Temirgorskiy JSC and Balykshy Mining Enterprise LLP" Customer: "Polymetal Eurasia" LLP	2021	Proof's was finalized and accepted by the Customer for other business planning purposes
120	External power supply study for Shalykko-Chaypan project in Shu district of Zhambyl region Customer: "KazakhstanEnergy" LLP	2021	Grid connection study approved by KEKOC JSC, technical conditions issued
121	External power supply study for extracting facility of the mining/processing plant "Makau" in the East Kazakhstan region Customer: «ASPMK-519» LLP	2021	Grid connection study approved by KEKOC JSC, technical conditions issued
122	Subcontracting services within the framework of the Central Asian Regional Electricity Market (CAREM) project. Task No. 3 - Study of the Central Asian energy system	2021	Energy system study was finalized and accepted by the Customer

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No	Project name	Year	Results
123	Author's supervision for the construction of the SPP Shaulder Early works objects Customer: "Expertus" LLP	2021	Construction of Early works objects successfully completed
124	Analysis of the possibility for CHP plant decommissioning option while maintaining the power supply of a metallurgical enterprise Customer: KPMAS Valuation LLC	2021	Analysis was finalized and accepted by the Customer for further business planning purposes
125	Forecast energy balance of the Republic of Kazakhstan until 2035 Customer: KEKOC JSC	2021	Forecast balance is completed and presented to KEKOC, ME RK, KPM RK
126	Assessment of the external power supply study of the Mook field in the East Kazakhstan region Customer: "AK Alynymas" JSC	2021	Grid connection study approved by Kazakhstan Energy LLP and KEKOC JSC, technical conditions issued
127	Presentation materials for the Project for the construction of a 1 Gt renewable energy cluster for the power supply of a data center in the Republic of Kazakhstan Customer: Kazakh Green Energy LLP	2021	Presentation materials finalized and accepted by the Customer for further business planning purposes
128	Feasibility study of "Construction of a wind power plant (HPP)" Customer: "THK Kazchrome" JSC	2021	Feasibility study was finalized and accepted by the Customer
129	Execution of a complex of engineering surveys on the project "Construction of a 103 MW wind power plant located in the territory of the Khromtas district of the Aktyubinsk region" Customer: "THK Kazchrome" JSC	2022	The complex of engineering surveys has been completed and accepted by the Customer
130	Grid connection study for Koku HPP-1 in Ainaly region Customer: "Kormakays HPP" LLP	2022	Grid connection study approved by KEKOC JSC, technical conditions issued
131	External power supply study for Kokay copper deposit in Ainaly region Customer: "KSGE" LLP	2022	Grid connection study approved by KEKOC JSC, technical conditions issued
132	Grid connection study for 150 MW WPP in Aktyubinsk region Customer: "THK Kazchrome" JSC	2022	Grid connection study approved by KEKOC JSC, technical conditions issued and approved

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No	Project name	Year	Results
133	External power supply study for industrial enterprises from Shu district in Ainaly region Customer: "Yub Energy" LLP	2022	Grid connection study approved by KEKOC JSC, technical conditions issued and approved
134	Grid connection study for a MW WPP on Tentek river irrigation channel in Ainaly region Customer: "Energiyotroy Company" LLP	2022	Grid connection study approved by DSO and KEKOC JSC, technical conditions issued and approved
135	External power supply study for Nunkazgan copper deposit with additional extracting factory Customer: "KazakhstanEnergy" LLP	2022	Grid connection study approved by DSO and KEKOC JSC, technical conditions issued and approved
136	Amended grid connection study for China HPP-2 and HPP-3 on Kura river in Ainaly region Customer: "Kormakays HPP" LLP and "Karatol HPP" LLC	2022	Grid connection study approved by DSO and KEKOC JSC, technical conditions issued and approved
137	Pre-FS for the construction of additional RES with a capacity of 3 GWh within the framework of the Big Wind project in the Republic of Kazakhstan Customer: Industrial enterprise	2022	Pre-FS completed and accepted by the Customer
138	External power supply study for SARAN Industrial cluster Customer: "KSGE Power Line" LLP	2022	Grid connection study approved by KEKOC JSC, technical conditions issued and approved
139	External power supply study for the project "Construction of engineering and communication infrastructure for individual residential buildings of the 100-11th microdistricts of the city of Temirtau. Substation 110/10 KV "Yuzhnyy-2" Customer: "INFRAENERGO" LLP	2022	Grid connection study approved by DSO and KEKOC JSC, technical conditions issued and approved
140	External power supply study for the Health-recreational complex in the Zhambyl district of the Ainaly region Customer: "Energiyotroy Company" LLP	2022	Grid connection study approved by DSO and KEKOC JSC, technical conditions issued and approved

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No	Project name	Year	Results
141	Grid connection study for 50 MW Ainaly wind farm Customer: "Laska Mining LLP"	2022	Grid connection studies approved by KEKOC JSC, technical conditions issued and approved
142	Updating of the Marketing section of the Feasibility Study "Construction of a Nuclear power plant in the Republic of Kazakhstan" Customer: "Kazakhstan Nuclear Power Plants"	2022	Study has been completed and accepted by the inter-departmental Commission
143	Electrical grid study for the connection of 1 GW wind farm with battery energy storage solution Customer: "Asta Energy" LLP	2022	Study has been completed and accepted by the Customer and inter-departmental Commission
144	External power supply study for "Copper Company Kounrad" LLP Customer: "Copper Company Kounrad" LLP	2022	Grid connection studies approved by KEKOC JSC, technical conditions issued and approved
145	Amended grid connection study for "EuroChem-Karatau" electric power plant in the Zhambyl region Customer: "ASPMK-519" LLP	2022	Grid connection studies approved by KEKOC JSC, technical conditions issued and approved
146	Master plan "Concept for industrial enterprises production facilities power supply until 2035, taking into account low-carbon development plans" Customer: "Energy Plant" LLP	2022	Master plan completed and accepted by the Customer
147	Grid connection study for Lepny HPP-3 in the Sarand district of Zhambyl region Customer: "MT & K" LLP	2022	Grid connection study approved by DSO and KEKOC JSC, technical conditions issued and approved
148	Optimization of the ferroalloy plant external power supply scheme to reduce the total cost of electric grid construction Customer: "Mineral Product International" LLP	2022	Optimization measures to significantly reduce the cost and increase the reliability of external power supply scheme were proposed and adopted

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No	Project name	Year	Results
149	External power supply study for the Chumek Iron Ore deposit Customer: "Laska Mining LLP" (Chumek iron ore deposit)	2023	The work has been completed and accepted by the Customer
150	Optimization of the external power supply study for the Ferroalloy Plant in order to reduce the total cost of power grid construction Customer: "Mineral Product International" LLP	2023	The work has been completed and accepted by the Customer
151	External power supply study for the mining and metallurgical complex of TIN ONE MINING JSC from the networks of KEKOC JSC "Symmet" LLP Customer: TIN ONE MINING JSC	2023	The scheme has been approved, technical specifications have been issued
152	Pre-feasibility study "Vision for the development of the National Electric Grid until 2035" Customer: "JSC "KEGOC"	2023	The work has been completed and accepted by the Customer
153	Grid connection study for a 1 GW Wind farm with an electricity storage system in the area of the village of Mandy, Zhambyl region Customer: "Asta Energy" LLP	2023	The work has been completed and accepted by the Customer
154	Grid connection study during the expansion and reconstruction of Ekibastuz GRES-2 with the installation of power units of stations No.3, 4 (2 power units 2540 MW + 1080 MW) Customer: STROYINDUSTRIYA LLP	2023	The scheme has been approved, technical specifications have been issued
155	Grid connection study for the project "Construction of a wind power plant of 1 GWh in the Embekshinsk district of the Akmola region" Client: QUNARY JER LLP	2023	The scheme has been approved, technical specifications have been issued
156	External power supply study for the Zhomart mine Customer: Kazakhmys Corporation LLP	2023	The scheme has been approved by the Customer, KEKOC JSC, ZHESK JSC
157	Grid connection study for the project "Construction of the WPP "Zhuzumde" 50 MW with the prospect of expansion to 350 MW" Customer: New Clean Energy LLP	2024	The scheme has been approved, technical specifications have been issued
158	Grid connection study for the project "Construction of a 100 MW wind power plant of Sungrow Kazakhstan Holdings LLP" Customer: Sungrow Kazakhstan Holdings LLP	2024	The scheme has been approved, technical specifications have been issued

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No	Project name	Year	Results
159	Amended grid connection study for HPP-2 and HPP-3 on the Kura River in the Zhambyl region Customer: Kormakays HPP-2 LLP	2024	The scheme has been approved, technical specifications have been issued
160	Feasibility Study for the Construction of a Wind Power Plant (6 sites) Customer: AQ Group	2024	The work is completed and accepted by the Customer
161	Grid connection study for HPP Koyul in Zhetysay region Customer: HPP Lepny-2 LLP	2024	The scheme has been approved, technical specifications have been issued
162	Grid connection study for the Selsky HPP in the Zhetysay region Customer: Kalkad Karatal HPP LLP	2024	The scheme has been approved, technical specifications have been issued
163	CHL Route Study for the 1000 MW WPP Project in Kazakhstan Customer: ACWA Power Global Services Ltd	2024	The work has been completed and accepted by the Customer
164	Grid connection study to assess the possibility of building and connecting a WPP with a total installed capacity of up to 155 MW in the Aktyubinsk region Customer: THK Kazchrome JSC	2024	The work has been completed and accepted by the Customer
165	The feasibility study "Construction of a 50 MW SPP in Tajikistan" (in consultation with the NCO "Association of Renewable Energy Sources of Tajikistan") Customer: "RusTrust LLC (on behalf of USACO)"	2024	The work has been completed and accepted by the Customer
166	Amended of the external power supply study of the SARAN Industrial Zone Customer: State Institution "Department of Energy and Housing and Public Utilities of Karaganda Region"	2024	The work has been completed and accepted by the Customer, technical specifications have been issued
167	External power supply study for the construction of a wind power plant of 100 MW in the Aktyubinsk region Customer: Shu Line LLP	2024	The work has been completed and accepted by the Customer
168	Grid connection study for the project "Construction of a solar power plant with a capacity of 20 MW near the village of Suzak, Turkistan region" Customer: DALA SOLAR LLP	2024	The work has been completed and accepted by the Customer

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- As of January 2025, the company has completed about 168 projects, for each of them a positive result has been obtained (approval, agreement, technical conditions, positive conclusion of the non-departmental examination).

Наши проекты (продолжение)

СЭС Бурное 2 (вторая фаза) мощностью 50 МВт



- **Схема выдачи мощности** с согласованием и получением ТУ на присоединение;
- **Технико-экономическое обоснование** с согласованиями и получением заключения Госэкспертизы;
- **Рабочий проект** с согласованиями и получением заключения Госэкспертизы, а также разрешения на СМР;
- **Авторский надзор за строительством;**
- **Выполнение обосновывающих расчетов по интеграции СЭС в энергосистему** с получением согласования KEGOC.

Our projects (continued)

SPP Burnoe 50 MW (The second stage)



- Grid connection study with approval and receipt of Technical conditions from transmission system operator;
- Feasibility study with approval and obtaining the conclusion of the State Expertise;
- Detailed design with approval and receipt of the conclusion of the State Expertise, as well as getting a construction permit;
- Authors supervision for construction process;
- Justifying calculations on power system integration of SPP Burnoe with power quality assessment and obtaining approval from KEGOC.

Наши проекты (продолжение)

СЭС Капшагай (Nurgisa) мощностью 100 МВт



- **Схема выдачи мощности** с согласованием и получением ТУ на присоединение;
- **Технико-экономическое обоснование** с согласованиями и получением заключения Госэкспертизы;
- **Рабочий проект** с согласованиями и получением заключения Госэкспертизы, а также разрешения на СМР;
- **Авторский надзор за строительством;**
- **Выполнение обосновывающих расчетов по интеграции СЭС в энергосистему_{25с}** получением согласования KEGOC.

Our projects (continued)

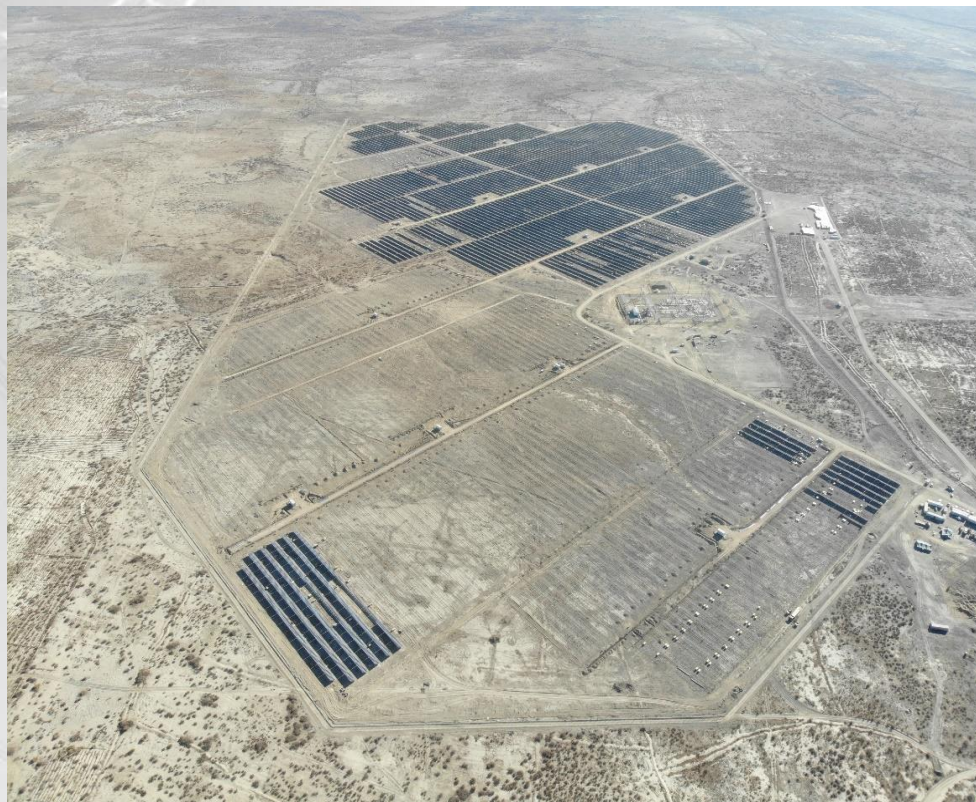
SPP Kapshagay (Nurgisa) 100 MW



- Grid connection study with approval and receipt of Technical conditions from transmission system operator;
- Feasibility study with approval and obtaining the conclusion of the State Expertise;
- Detailed design with approval and receipt of the conclusion of the State Expertise, as well as getting a construction permit;
- Justifying calculations on power system integration of SPP Kapshagay (Nurgisa) with power quality assessment and obtaining approval from KEGOC.

Наши проекты (продолжение)

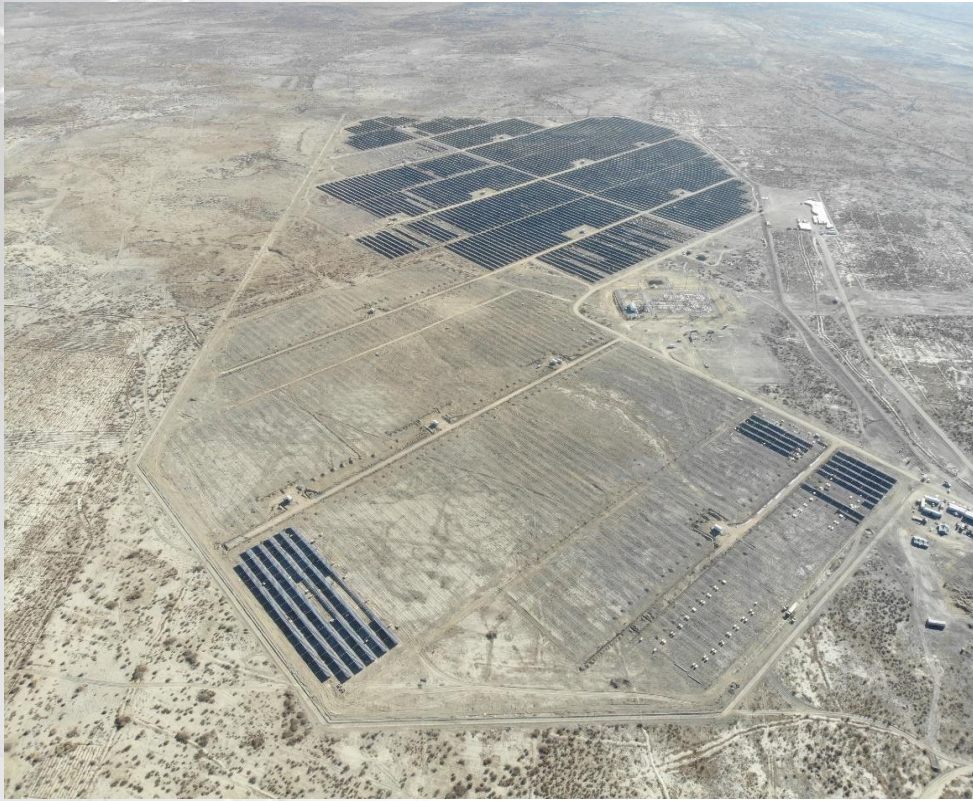
СЭС Байконыр мощностью 50 МВт



- **Схема выдачи мощности** с согласованием и получением ТУ на присоединение;
- **Технико-экономическое обоснование** с согласованиями и получением заключения Госэкспертизы;
- **Рабочий проект** с согласованиями и получением заключения Госэкспертизы, а также разрешения на СМР;
- **Авторский надзор за строительством;**
- **Выполнение обосновывающих расчетов по интеграции СЭС в энергосистему₂₇** с получением согласования KEGOC.

Our projects (continued)

SPP Baikonyr 50 MW



- Grid connection study with approval and receipt of Technical conditions from transmission system operator;
- Feasibility study with approval and obtaining the conclusion of the State Expertise;
- Detailed design with approval and receipt of the conclusion of the State Expertise, as well as getting a construction permit;
- Authors supervision for construction process;
- Justifying calculations on power system integration of SPP Baikonyr with power quality assessment and obtaining approval from KEGOC.

Наши проекты (продолжение)

СЭС Задарья мощностью 14 МВт



- **Схема выдачи мощности** с согласованием и обновлением ТУ на присоединение;
- **Рабочий проект** с согласованиями и получением заключения Госэкспертизы, а также разрешения на СМР;
- **Авторский надзор за строительством;**
- **Выполнение обосновывающих расчетов по интеграции СЭС в энергосистему₂₉** с получением согласования ОЖТ и KEGOC.

Our projects (continued)

SPP Zadarya 14 MW



- Amendment of Grid connection study with approval and receipt of Technical conditions from distribution system operator;
- Detailed design with approval and receipt of the conclusion of the State Expertise, as well as getting a construction permit;
- Authors supervision for construction process;
- Justifying calculations on power system integration of SPP Zadarya with power quality assessment and obtaining approval from KEGOC/OZhT.



ВЭС Бадамша-1 мощностью 48 МВт



ВЭС Бадамша-2 мощностью 48 МВт

- **Схема выдачи мощности** с согласованием и получением ТУ на присоединение;
- **Технико-экономическое обоснование** с согласованиями и получением заключения вневедомственной экспертизы;
- **Рабочий проект (сметный расчет)** с согласованиями и получением заключения вневедомственной экспертизы;
- **Выполнение обосновывающих расчетов по интеграции ВЭС-1 в энергосистему** с получением разрешения АО «КЕГOC» на включение ВЭС.

Our projects (continued)

WPP Badamsha-1 48 MW, WPP Badamsha-2 48 MW



WPP Badamsha-1 48 MW



WPP Badamsha-2 48 MW

- Grid connection study with approval and receipt of Technical conditions from transmission system operator;
- Feasibility study with approval and obtaining the conclusion by out-of-departmental expertise;
- Detailed design (cost estimate calculation) with approval and receipt of the conclusion by out-of-departmental expertise, as well as getting a construction permit;
- Justifying calculations on power system integration of WPP-1 approval from KEGOC JSC for WPP commissioning was obtained.

Наши проекты (продолжение)

СЭС Шаульдер мощностью 50 МВт



- **Предпроектная документация** объекта ВИЭ для проведения проектных аукционов - СЭС 50 МВт вблизи поселка Шаульдер Туркестанской области;
Подготовка технической документации для тендера для строительства объектов выдачи мощности
Работы завершены и приняты Заказчиком. По предпроектной документации осенью 2019 г. успешно проведен проектный аукцион;
- **Авторский надзор** за строительством СЭС Шаульдер в объеме РП по Ранним работам. Строительство объектов в объеме Ранних работ завершено.

Our projects (continued)

SPP Shaulder 50 MW



- **Pre-FS documentation for renewable energy source within preparation to RES auction - 50 MW solar power plants near the village of Shaulder in Turkestan region;
Preparation of technical documentation ITT
Based on Pre-FS documentation in the fall 2019 RES auction was successfully held;**
- **Author's supervision for the construction of the SPP Shaulder Early works objects.
Construction of Early works objects successfully completed.**

Наши проекты (продолжение)

Коринская ГЭС мощностью 28,5 МВт



- **Схема выдачи мощности ГЭС на реке Кора в Жетысуской области;**
- **Согласование Схемы выдачи мощности с АО «KEGOC» и ТОО «Каратал-Транзит».**

Our projects (continued) «Korinskaya GES» 28,5 MW



- Grid connection study of run-of-river HPP on Kora river in Zetysu region;
- Obtainment of Grid connection permit from KEGOC JSC and Karatal-Transit LLP.

Наши проекты (продолжение)

Чижинская ГЭС-2 мощностью 25,8 МВт



- **Схема выдачи мощности ГЭС-2 на реке Чижа в Жетысуской области и согласование с АО «KEGOC» и ТОО «Каратал-Транзит»;**
- **Получение Технических условий на присоединение.**

Our projects (continued)

HPP-2 on Chizha river 25,8 MW



- Grid connection study for HPP-2 on Chizha river in Zhetysu region with approval from KEGOC JSC and Karatal Tranzit LLP;
- Obtainment of Technical conditions.

Наши проекты (продолжение)

ВЭС Ыбырай (Жел) мощностью 50 МВт



- **Схема выдачи мощности ВЭС 50 МВт в Костанайской области и согласование с АО «KEGOC» и ТОО «МРЭТ»;**
- **Получение Технических условий на присоединение.**

Our projects (continued)

WPP YBYRAI (ZHEL) 50 MW



- **Grid connection study** for 50 MW WPP in Kostanay region with approval from KEGOC JSC and MRET LLP;
- **Obtainment of Technical conditions.**

Наши проекты (продолжение)

СЭС Мукагали (Каскелен) мощностью 50 МВт



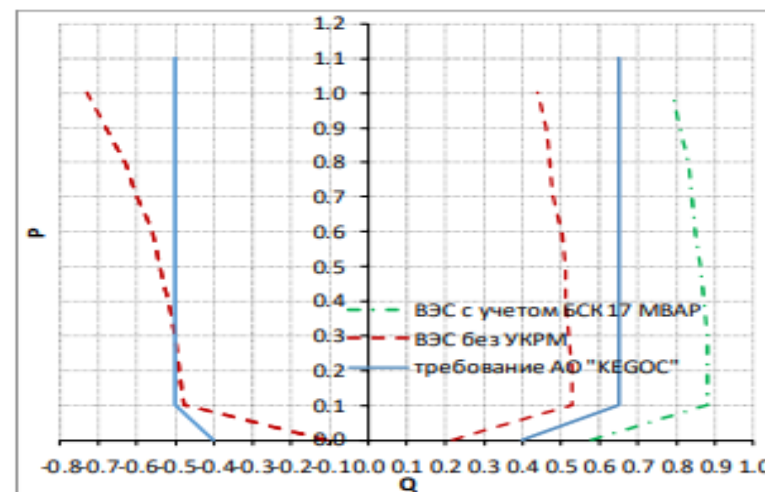
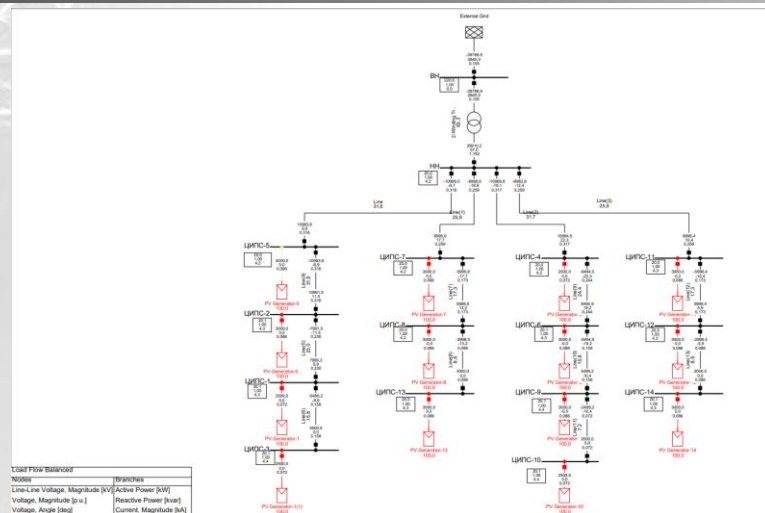
- **Схема выдачи мощности СЭС 50 МВт в Алматинской области и согласование с АО «KEGOC»;**
- **Получение Технических условий на присоединение.**

Our projects (continued)

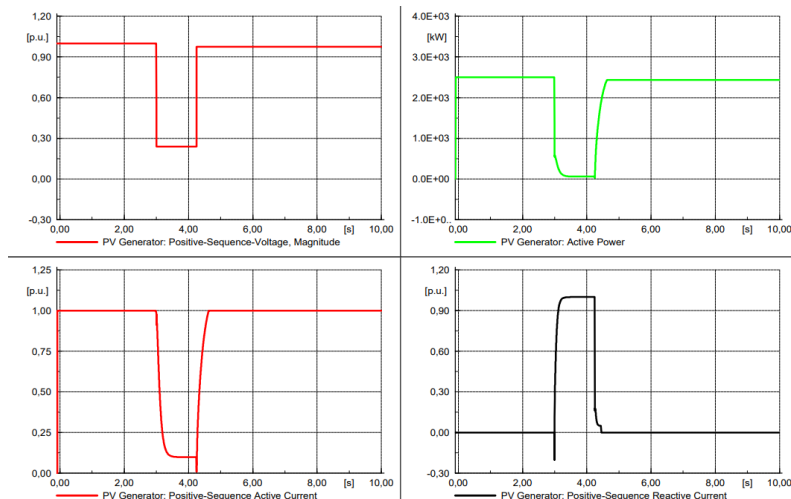
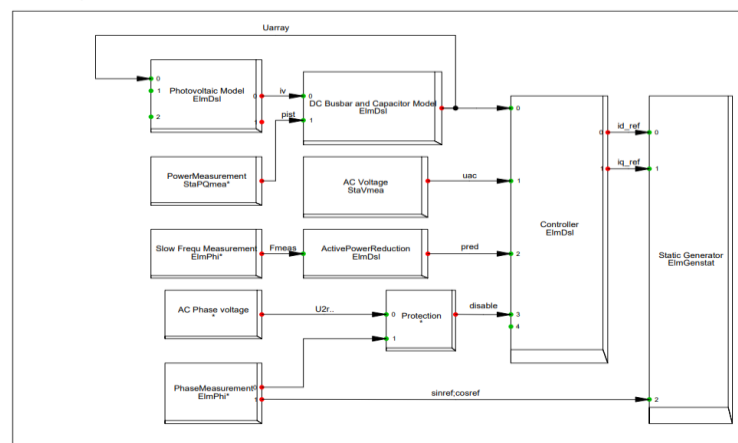
SPP Mukagali (Kaskelen) 50 MW



- **Grid connection study** for 50 MW SPP in Almaty region with approval from KEGOC JSC;
- **Obtainment of Technical conditions.**



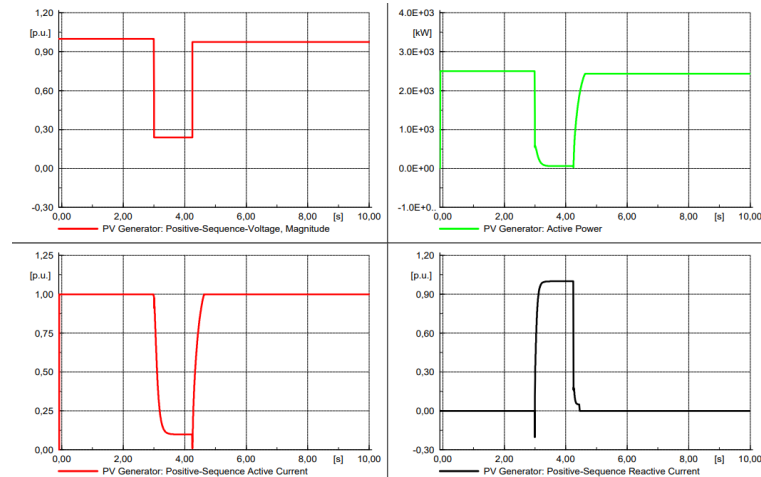
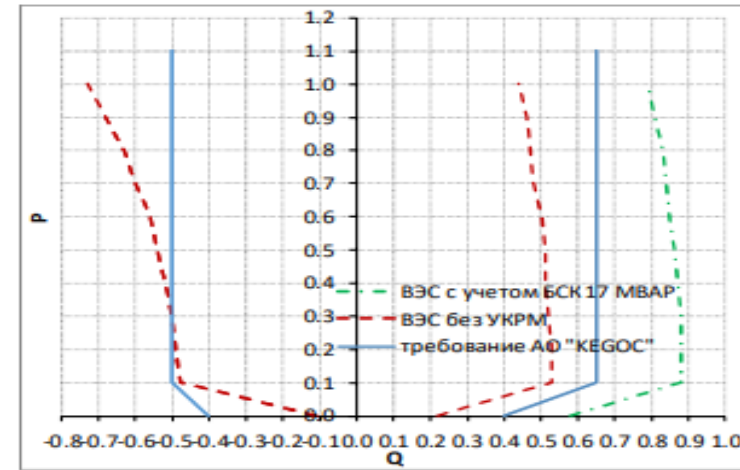
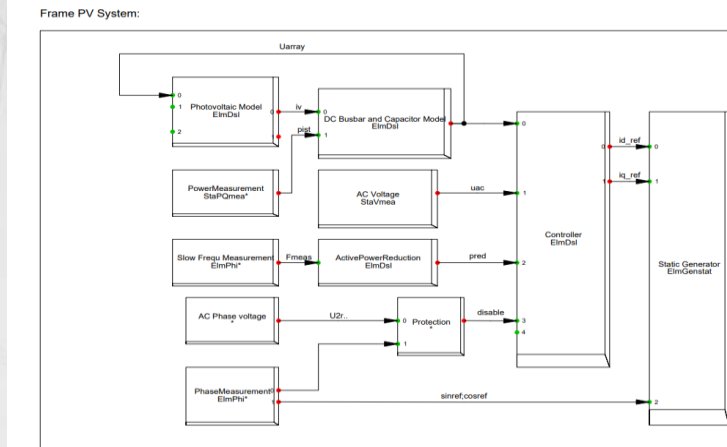
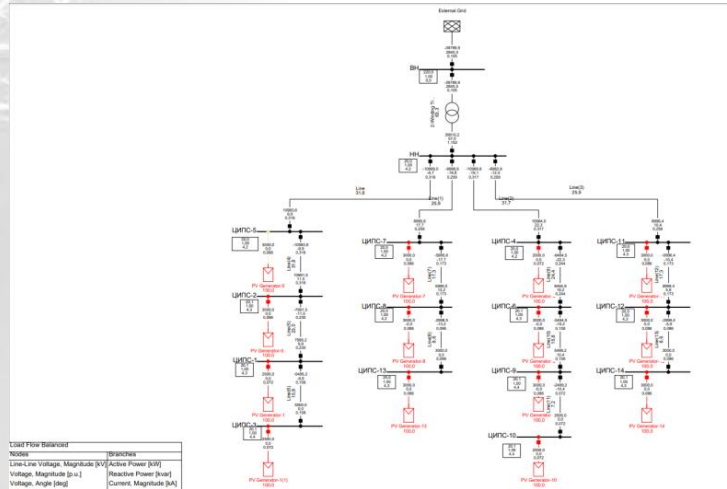
Frame PV System:



- Сопоставительный анализ характеристик оборудования ВИЭ с требованиями Системного оператора в части обеспечения устойчивой работы и показателей качества электроэнергии;
- Составление модели ВИЭ и выполнение расчетов на схеме замещения энергосистемы Казахстана;
- Анализ результатов, формулирование выводов/рекомендаций, согласование с электросетевой компанией и системным оператором.

Our projects (continued)

Justifying calculations on power system integration of RES with power quality assessment



- Comparative analysis of the characteristics of RES equipment with the requirements of the System Operator in terms of ensuring stable operation and power quality indicators;
- Making up a model of RES and performing justifying calculations on the Kazakhstan power system simulation model;
- Analysis of the results, conclusions/recommendations, coordination with the electric grid company and the transmission system operator.

Наши отзывы и благодарственные письма (начало)



- За годы работы компаний получена лояльность от наших постоянных клиентов
- Ни одного неудовлетворенного клиента, либо претензии за время существования компании

Feedback and references from our clients (beginning)



- Over the years of operation ESR received loyalty from our regular customers
- Not a single unsatisfied customer or claim during the period of existence of the company

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Figure 1 Organizational structure of the "TOTAL" company

The diagram illustrates the organizational structure of the "TOTAL" company. At the top is the "TOTAL" logo. Below it, the structure is divided into two main branches: "TOTAL ENERGETICS" and "TOTAL SERVICES". "TOTAL ENERGETICS" is further divided into "TOTAL ENERGETICS RUSSIA" and "TOTAL ENERGETICS INTERNATIONAL". "TOTAL SERVICES" is divided into "TOTAL SERVICES RUSSIA" and "TOTAL SERVICES INTERNATIONAL". Below these branches, there are several departments and subsidiaries, including "TOTAL ENERGETICS RUSSIA" and "TOTAL ENERGETICS INTERNATIONAL".

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«Энергия+» ООО «ТОО «Energy System Russia»»
 100000, г. Москва, ул. Мясницкая, д. 17
 8 (495) 790-00-00

RUEN 100.0
 01.10.2024

ТОО «Energy System Russia»

Компания ТОО «Energy System Russia» в 2023 году на территории «Энергия Плюс (Energy Plus)» компания Маргариетовича получила тарифы на электроэнергию из генерирующей компании ЕЭС Казахстана. Прогнозируемая балансовая стоимость в августе на территории до 20-ти.

В работе дана оценка прогнозируемых тарифов на электроэнергию генерирующей компании, с учетом влияния различных факторов на стоимость «Баланса Системы» на трансформированном и не трансформированном уровне, а также прогнозирования балансовой стоимости электроэнергии.

Составлением и работой надлежит балансовой стоимости в августе.

На основе существующей работы составления балансовой стоимости балансовой стоимости «ТОО «Энергия Плюс»» и в дальнейшем под влиянием различных параметров сотрудничества с ТОО «Energy System Russia».

**С уважением,
Генеральный директор**



Е. А.

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 01.10.2024

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Feedback and references from our clients (continued)



- Over the years of operation ESR received loyalty from our regular customers
- Not a single unsatisfied customer or claim during the period of existence of the company

Спасибо за внимание!



Контактная информация:

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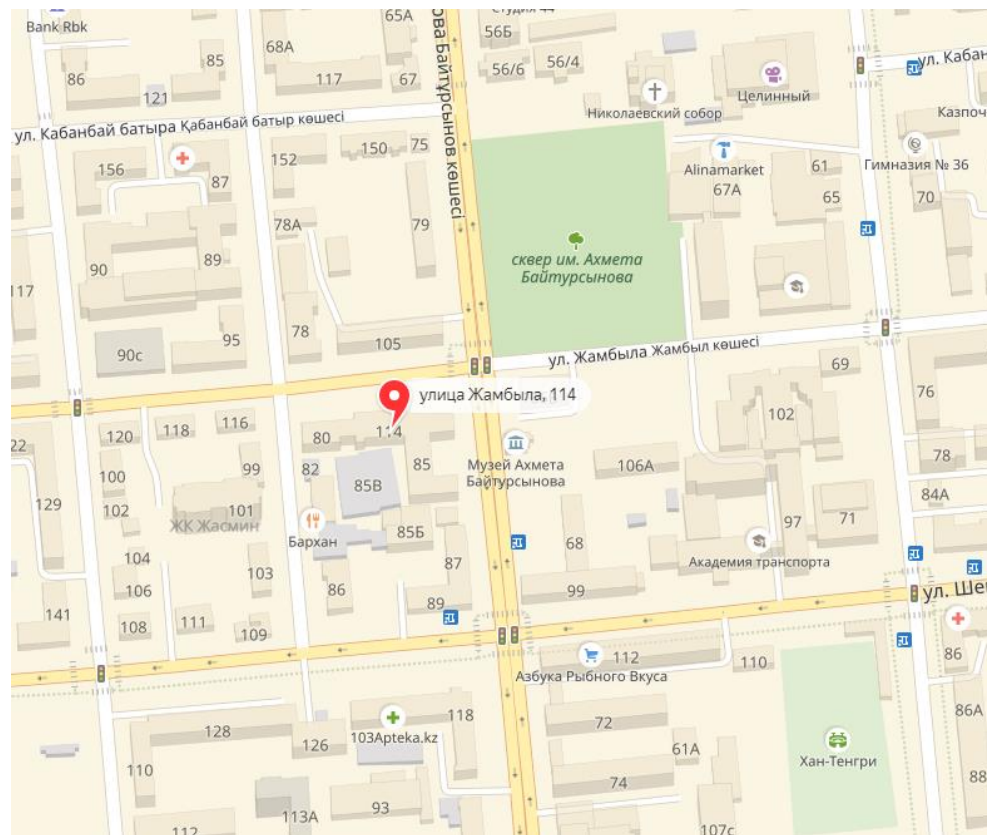
(угол улицы Байтурсынова), офис 235.

Телефон: +7 727 292 03 70

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Thanks for attention!



Contact Information:

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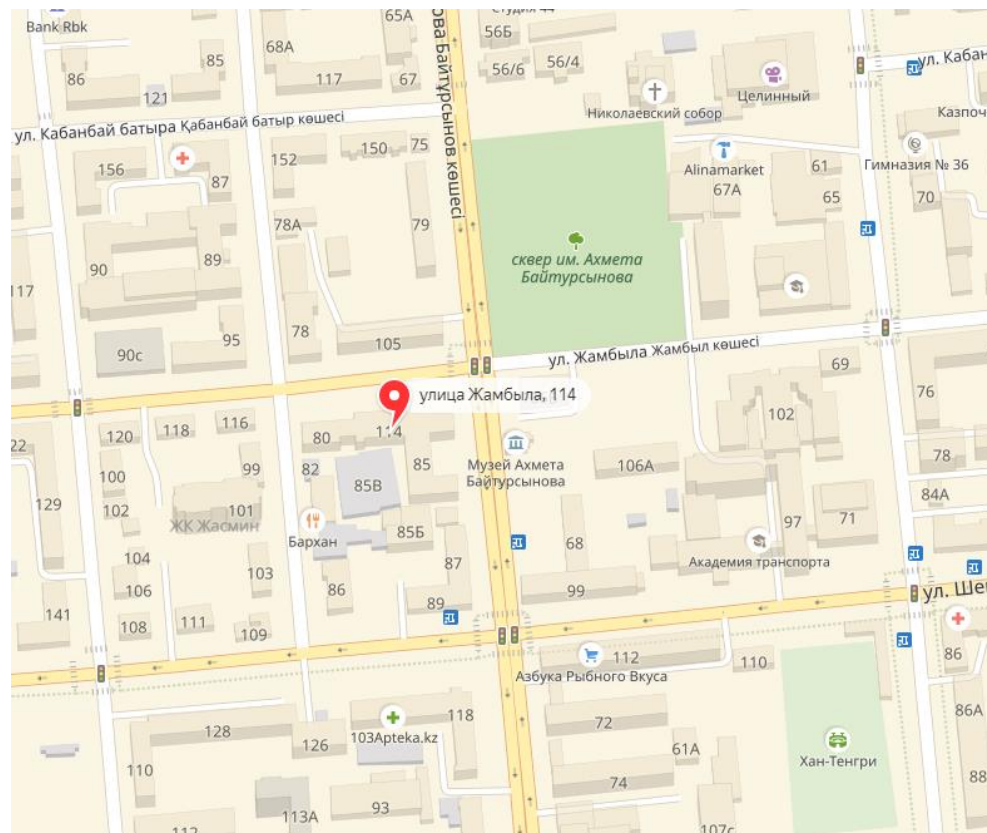
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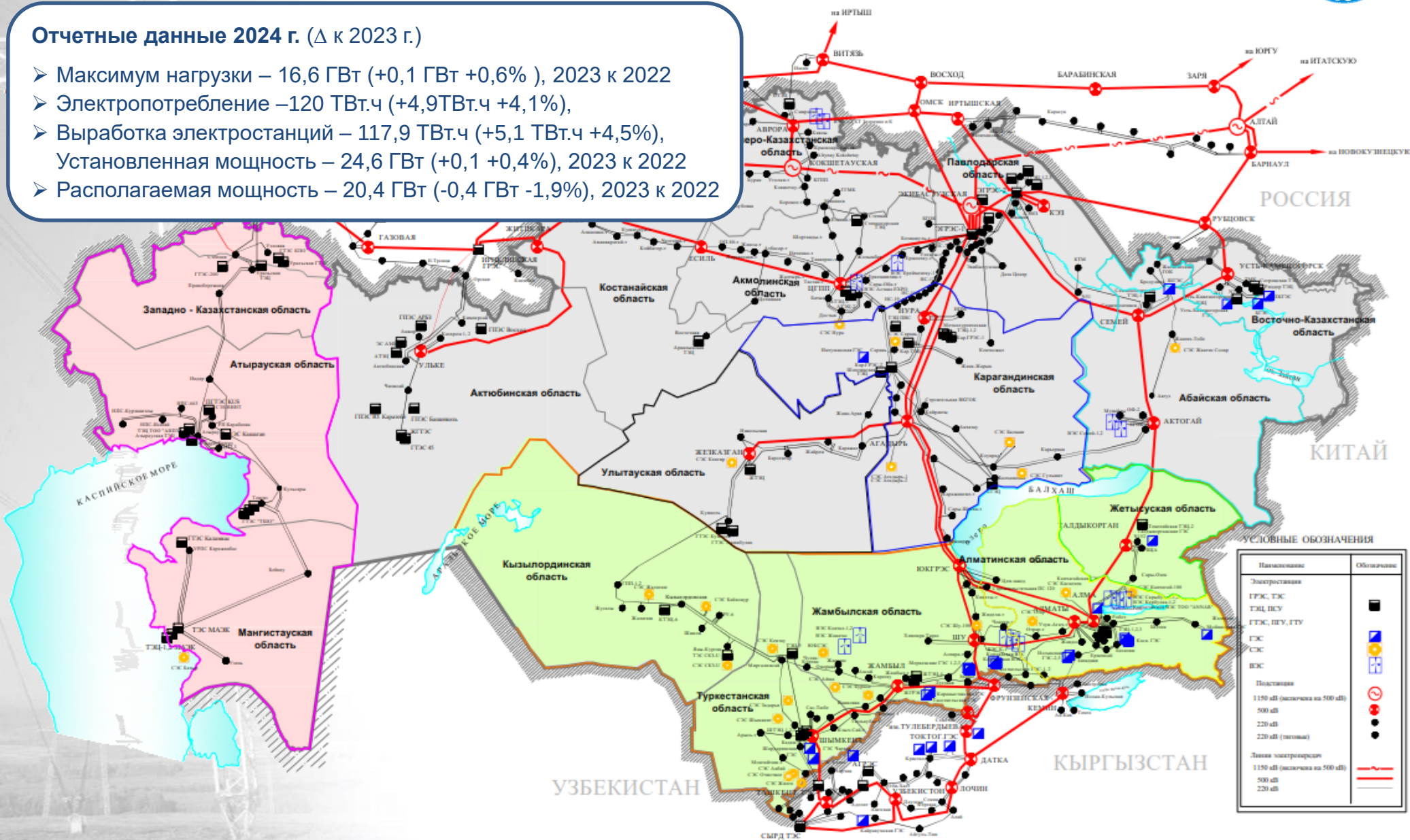


Основные показатели ЕЭС Казахстана



Отчетные данные 2024 г. (Δ к 2023 г.)

- Максимум нагрузки – 16,6 ГВт (+0,1 ГВт +0,6%), 2023 к 2022
- Электропотребление –120 ТВт.ч (+4,9ТВт.ч +4,1%),
- Выработка электростанций – 117,9 ТВт.ч (+5,1 ТВт.ч +4,5%),
Установленная мощность – 24,6 ГВт (+0,1 +0,4%), 2023 к 2022
- Располагаемая мощность – 20,4 ГВт (-0,4 ГВт -1,9%), 2023 к 2022



Main data of Kazakhstan UPS



Reporting data 2024 (Δ to 2023)

- Peak electrical load – 16,6 GW (+ 0,1 GW +0,6%), 2023 to 2022
- Electricity consumption – 120 TВт.ч (+4,9TWh +4,1%),
- Electricity generation – 117,9 TВт.ч (+5,1 TВт.ч +4,51%),
- Installed generation capacity – 24,6 GW (+0,1 GW +0,4%), 2023 to 2022
- Available generation capacity– 20,4 GW (-0,4 GW -1,9%), 2023 to 2022

