DATA REQUEST

- **1_1** Please provide all supporting workpapers used to develop the "Summary of Incremental Costs and Revenues" attached to Mr. West's testimony (Exhibit 2). Include all Excel workbooks/spreadsheets, with formulas used to develop each of the items in the summary. Also provide a narrative explaining the methodology and the underlying assumptions made by the Company for each of the investment, expense and revenue amounts included in the analysis. These workpapers should include, but not be limited to, the following:
 - a. The assumed on and off-peak kWh usage of the Ebon load by month each year of the 10-year contract.
 - b. The workpapers supporting the DA-LMP price of 0.0389/kWh. Show all calculations used to develop this price. Please provide the hourly load shape assumed by the Company for the full Ebon load together with the hourly LMPs by month used to develop the DA-LMP price.
 - c. An explanation for the methodology used to develop the distribution marginal costs, together with all calculations and assumptions. This should include the basis for the levelized carrying cost of 10.15%.
 - d. The expected kW load, by month, during the on peak period, for each year of the contract. Include both the load subject to interruption and the firm load, separately stated.
 - e. Provide the workpapers used to develop the PJM LSE transmission charges for each year of the contract. Identify each such charge included in the \$28,626,639 amount shown on line 9 of the marginal cost analysis. Also provide a narrative explaining how the Company developed its 10-year projection of transmission costs for KPCo, as used in this analysis.
 - f. Please provide a narrative explaining why there are no generation capacity costs associated with the assumed 25 MW of firm load associated with Ebon.
 - g. Please provide the workpapers used to calculate the

"Incremental Revenue" shown on line 11 of the marginal cost analysis. Please explain whether this incremental revenue is the forecasted levelized revenue that will be produced by Ebon under the contract or some other amount?

RESPONSE

d.

Please see the Company's response to KPSC 1-9 for the requested narrative and assumptions.

a. Please also see KPCO_R_KPSC_1_9_PublicAttachment1.

b. On December 28, 2022 the Company filed an ERRATA to BKW-Exhibit 2, which set the DA LMP to mirror the fuel adjustment clause and base fuel revenues side of the equation. Nonetheless the original 0.0389/kWh was based on a three-year average ending June 2022. This data is also provided within the errata version of BKW-Exhibit 2. Please see KPCO_R_KPSC_1_9_PublicAttachment1 for the workpapers. Also see subpart d for the expected load.

c. Please see KPCO_R_KPSC_1_9_PublicAttachment1, tab "CC" for the requested calculations.

Year	Expected Load (kW)	Firm Load (kW)	Interruptible Load (kW) 72,000			
1	80,000	8,000				
2	250,000	25,000	225,000			
3	250,000	25,000	225,000			
4	250,000	25,000	225,000			
5	250,000	25,000	225,000			
6	250,000	25,000	225,000			
7	250,000	25,000	225,000			
8	250,000	25,000	225,000			
9	250,000	25,000	225,000			
10	250,000	25,000	225,000			

e. On December 28, 2022, the Company filed an ERRATA to BKW-Exhibit2. Nonetheless, please see the Company's response to

KPCO_R_KPSC_1_9_PublicAttachment1, transmission tabs for the requested information.

f. Please see the Company's response to KPSC 1-9.

g. On December 28, 2022, the Company filed an ERRATA to BKW-Exhibit2. Nonetheless, please see KPCO_R_KPSC_1_9_PublicAttachment1 for the requested calculations. Additionally, the Company understands the question to be referring to line 12 of the marginal cost analysis (Exhibit 2).

DATA REQUEST

1_2 Please provide, in Excel, the most recent version of AEP's Fundamental Forecast. To the extent that the Company has hourly LMP projections that support the Fundamental Forecast (or as part of the forecast), please provide the hourly LMP projections that are available in an Excel workbook, with formulas.

RESPONSE

Please see KPCO_R_AG-KIUC_1_2_Attachment1 for the Company's most recent Fundamental Forecast.

The Company does not have hourly LMP projections.

DATA REQUEST

- **1_3** With regard to the recent bankruptcy filing the cryptocurrency exchange FTX, please provide the following:
 - a. Any written communication from Ebon to KPCo indicating any change in Ebon's Kentucky project plans as a result of the FTX bankruptcy.
 - b. Any notes, memoranda or other writings in the possession of KPCo and/or AEP documenting any oral communication with representatives of Ebon regarding any change in Ebon's Kentucky project plans as a result of the FTX bankruptcy.
 - c. Any notes, memoranda or other writings in the possession of KPCo and/or AEP regarding the potential impact of the FTX bankruptcy on the Ebon project.

RESPONSE

a., b., c. The Company does not have in its possession any of the documents requested.

However, Ebon has verbally informed Kentucky Power that the collapse of FTX Trading Ltd. has no direct impact on Ebon International, LLC (the US data center operator) or its parent, Ebang International Holdings Inc. (Nasdaq: EBON). FTX Trading Ltd. is a financial cryptocurrency exchange and hedge fund. Ebon International, LLC. develops and operates physical blockchain data centers using the parent company's technology and equipment that can be used to create cryptocurrency. Although both companies operate within the wider blockchain industry, the specific industry sectors, target audience and operations are significantly different. Neither Ebon International, LLC (the US subsidiary) nor Ebang International Holdings Inc. (the publicly listed parent company) have any ownership or contractual relationship with FTX and do not expect to participate in FTX's bankruptcy process as a creditor or a debtor.

Witness: Amanda C. Clark

DATA REQUEST

1_4 With regard to Mr. West's testimony on page 8 beginning at line 10 ("Thus, of Ebon's Total Capacity Reservation of 250 MW, Kentucky Power will be required to acquire only 25 MW to meet the Company's PJM capacity requirements."), please confirm that the Company would also be required to acquire additional capacity above the 25 MW of load to meet its FRR obligation, which includes reserves. If the Company cannot confirm this, please provide a full explanation for your response.

RESPONSE

Confirmed. For load obligations in PJM, all Load Serving Entities (LSE) use the same planning parameters. These include Peak Load Contribution (PLC), Zonal Scaling Factor and Forecast Pool Requirement (FPR). The PLC essentially reflects the LSE's share of the normalized coincident summer peak for a particular zone. The normalized coincident peak for the summer season is determined by PJM for each zone. The five coincident peaks for each LSE are collected and used to allocate the normalized peak to determine the PLC. The zonal scaling factor is determined by PJM's load forecast for each zone. All entities use the same FPR.

Kentucky Power's PLC is determined by averaging the five peaks coincident with PJM. This average is used to allocate the weather-normalized peak for the AEP Zone to Kentucky Power and other entities in the AEP Zone. Kentucky Power's share for the 2022 summer was approximately 4.3%.

The PLC for Kentucky Power will not include any load for Ebon until it comes into operation. The Kentucky Power load forecast assumes some activity in 2023, but full operation is not expected to occur until 2024. With that timeline, Ebon will be included in 2024 five coincident peaks and a PLC will be developed including that load. However, that PLC will not be utilized until 2025 for PJM planning purposes.

If a load addition were made for Ebon, it would not be solely assigned to Kentucky Power. It would be included in the load forecast for the AEP Zone. The growth rate for the zone would change and this change would affect all LSEs in the zone. Kentucky Power would only see their obligation affected by their share of the load increase.

No load additions for Ebon have been provided to PJM. Therefore, the forecasts for Kentucky Power for PJM planning purposes do not include Ebon. The capacity obligation would not change specifically for Ebon until the year after Ebon is operational.

Even when that occurs, it is dependent on what Ebon's load is at the time of the five coincident peaks.

DATA REQUEST

1_5 How much capacity would the Company require to serve the additional 25 MW of Ebon firm load, including reserves?

RESPONSE

The Forecasted Pool Requirement for Delivery Year 2023/2024 in PJM is 9.30%. The total load obligation would be 27.3 MW including reserves for that Delivery Year. Details of PJM's installed reserve margin requirement can be found on PJM's website via the below link:

https://www.pjm.com/-/media/committees-

groups/subcommittees/raas/2022/20220930/2022-pjm-reserve-requirement-study-report---draft.ashx

DATA REQUEST

1_6 Please explain why Mr. West's marginal cost analysis did not include any costs for the assumed 25 MW of firm Ebon load?

RESPONSE

The Company assumes that this data request refers to generating capacity costs contemplated in the marginal cost study. Please see the Company's response to KPSC 1-9, subpart b.

DATA REQUEST

1_7 Please provide the marginal capacity cost to serve the 25 MW of Ebon firm load. Provide all supporting workpapers, in Excel, for the analysis.

RESPONSE

Please see the Company's response to KPSC 1-9, subpart b as to its position that there will not be marginal capacity costs to serve Ebon's firm load. Nonetheless please also see the Company's response to KPSC 1-9, subpart f which provides for a marginal capacity cost study with clearing costs from the Power Coordination Bridge Agreement.

DATA REQUEST

1_8 On page 8 of Mr. West's testimony, he states that the revenues paid by Ebon are sufficient to cover all of the marginal costs associated with supplying Ebon's load. Is it the Company's position that there are no additional costs associated with supplying the additional 25 MW of Ebon firm load? Please provide a full explanation for your response.

RESPONSE

Please see the Company's response to KPSC 1-9 in general as to its position that there will not be marginal capacity costs to serve Ebon's firm load. Nonetheless please also see the Company's response to KPSC 1-9, subpart f which provides for a marginal capacity cost study with clearing costs from the Power Coordination Bridge Agreement.

DATA REQUEST

1_9 On page 8 of the redacted contract, it states "Any increase to the Total Capacity Reservation is subject to the availability and cost of incremental Capacity from the Company, and to the receipt of any necessary regulatory approvals." Please reconcile this contract provision with Mr. West's testimony on page 9 ("The cost of capacity needed to serve new load has never been directly assigned only to new customers.").

RESPONSE

The statement at page 8 of the Special Contract refers to any increase in the customer's Total Capacity Reservation and whether or not the Company has available capacity to serve the additional load. The statement in Mr. West's testimony refers to capacity purchases to serve all customers as is the case here with the expiration of the Rockport UPA. The Company needs to secure capacity to ensure it has enough capacity to serve all of its customers, not just new or particular customers. Kentucky Power has an obligation to serve all customers in its certified service territory and cannot unreasonably discriminate against any one customer in favor of another.

DATA REQUEST

1_10 Refer to Section 3.3 of the contract ("The Customer's Metered Demand shall not exceed, and the Company shall not be required to supply capacity in excess of, one hundred twenty percent (120%) of the Total Capacity Reservation, except by mutual written agreement of the Parties."). If the load exceeds 250 MW by 50 MW (20%), would this load be fully interruptible pursuant to Schedule DRS? If not, please explain how a 50 MW increase in load would impact the Company's FRR capacity plan in any delivery year.

RESPONSE

The customer's Firm Service Capacity Reservation remains at 25 MW even if their load exceeds the Total Capacity Reservation of 250 MW by 20 percent.

DATA REQUEST

- **1_11** With regard to the contractual obligation of Ebon to construct a 250 MW substation ("B. Customer and the Company will execute a separate contract regarding the Customer's substation. The Customer will provide any substation and transformation equipment and any other facilities including real property required to take delivery of the electric service to be provided by the Company under this Contract at the voltage and at the Delivery Point designated herein."), please provide the following:
 - a. The low side voltage of the substation.
 - b. A description of where the service will be metered (i.e., whether the meter will be on the high side or the low side of the substation).
 - c. The Company's estimate of the cost to construct the substation, assuming that the Company constructed it.
 - d. The key provisions or term sheet for the "separate contract regarding the Customer's substation."
 - e. Discussion of whether KPCo will finance the construction of the substation. If so, what is the expected monthly carrying charge, including O&M expenses that will be charged to Ebon?
 - f. If the Company constructs and finances the substation, provide a discussion of security/credit guarantees to be provided by Ebon.

RESPONSE

- a. The low side voltage is 34.5kV.
- b. Service will be metered on the high side.
- c. The Company has no estimate to construct as Ebon is building its own station.

d. The contract to construct does not yet exist and will be between Ebon and its contractors.

e. Kentucky Power will not finance the construction of the substation.

f. See the Company's response to sub-part e.

DATA REQUEST

1_12 Rider D.R.S. states that it is available for customers that take service under a standard demand metered rate schedule. Is it the Company's position that this would also apply to a non-standard special contract like the Ebon contract?

RESPONSE

Yes.

DATA REQUEST

1_13 Please confirm that the DRS credit of \$5.50/kW month will be charged to all of the Company's retail customers via Tariff P.P.A. ("Purchase Power Adjustment"). Please provide the amount of the expected charges to Tariff P.P.A. per month as a result of the Ebon DRS credits in both Phase 1 and Phase 2. Please explain whether this cost is included in Mr. West's marginal cost analysis. If it is not included, please explain why it is not included.

RESPONSE

The monthly Interruptible Demand Credit of \$5.50/kW-month is charged to all retail customers through Tariff P.P.A., the same as with any other customer participating in Rider D.R.S. Three customers currently participate in Rider D.R.S.

Under Tariff P.P.A. (Sheet 35-1), section 1.b.:

The annual purchase power adjustment factor will be computed using the following formula:

1. Annual Purchase Power Net Costs (PPANC)

PPANC = N+CSIRP+OATT+RKP+RP-BPP

Where:

BPP = The annual amount of purchase power costs included in base rates, \$98,165,699.

[...]

b. CSIRP = The net annual cost of any credits provided to customers under Tariff C.S.-I.R.P., Tariff D.R.S., Tariff V.C.S. *and special contracts for interruptible service* above or below the \$454,997 included in BPP.¹

Therefore, monthly Interruptible Demand Credits are recoverable under Tariff P.P.A. and are not typically included in a marginal cost analysis. Nonetheless, the Company has included Interruptible Demand Credits in the marginal cost study provided as KPCO_R_KPSC_1_9_PublicAttachment1 in tab "Yrs2-10 Rev".

Further, Rider D.R.S. is a peak-shaving product and interruptible load under the tariff will not be included in the Company's FRR plan. Even though monthly Interruptible Demand Credits are recovered from all customers, peak shaving lowers overall costs to all customers by avoiding high energy costs at the Company's peaks.

See KPCO_R_KPSC_1_9_PublicAttachment1, tabs "Yr1 Rev" and "Yrs2-10 Rev" for the estimated amount of D.R.S. Billing Units and Credits

Witness: Brian K. West

^[1] Emphasis added.

DATA REQUEST

1_14 Please confirm that, pursuant to PJM Manual M-18, Fixed Resource Requirement ("FRR") members of PJM, such as KPCo after the Liberty acquisition, are required to submit an FRR capacity plan that is based on an FRR unforced capacity obligation.

RESPONSE

Confirmed. FRR entities must submit FRR plans that include sufficient resources to meet their capacity obligations inclusive of the applicable reserve margin.

DATA REQUEST

- **1_15** Please provide the following information regarding KPCo's FRR unforced capacity obligation, upon the closing of the sale to Liberty. To the extent that the response will be different depending on whether KPCo operates pursuant to the Bridge PCA, please provide the response for the period under the Bridge PCA and without the Bridge PCA.
 - a. How will KPCo's FRR unforced capacity obligation be determined (for example, will KPCo be allocated a share of the zonal weather normalized peak load of the AEP Zone based on a 5 CP demand allocation (PJM 5 highest summer peaks)? Provide an illustration of how this will be calculated.
 - b. Please confirm that under Rider D.R.S. ("Demand Response Service"), the Ebon Phase 2 interruptible load of 225 MW will not be eligible to participate in any PJM demand response capacity program. If this cannot be unequivocally confirmed, please provide a complete explanation for your response.
 - c. Please confirm that KPCo plans to interrupt the 225 MW of Ebon interruptible load so that it will not be included in KPCo's 5 CP allocation of the zonal weather normalized peak load, and therefore will not be included in KPCo's FRR unforced capacity obligation. If this cannot be unequivocally confirmed, please provide a complete explanation for your response.
 - d. Assuming that the response to Part(c) above is confirmed, please confirm that in order to exclude the 225 MW of Ebon interruptible load from KPCo's 5 CP (PJM 5 highest summer peaks) demands, KPCo would have to insure that it will always be able to call for an interruption in these 5 hours and that Ebon will always reduce its load to only 25 MW.

e. To the extent that Ebon fails to fully reduce its load during a discretionary interruption event (DRS Event Failure), will the Rider D.R.S. Event Failure Charge fully compensate KPCo and its other customers for the PJM FRR Commitment Insufficiency Charge, which is equal to two times the Cost of New Entry (\$/MW-Year) in the zone times the shortage of unforced capacity resources in meeting the obligation?

RESPONSE

a. Kentucky Power's Capacity obligation will continue to be calculated in alignment with PJM requirements based on its 5CP load contributions and the applicable reserve margin regardless of ownership.

b. Confirmed. One cannot double count a demand response resource on both the demand side and resource side of the equation.

c. Confirmed.

d. Confirmed.

e. This question assumes that Ebon's failure to reduce load during a discretionary interruption would directly lead to a FRR Commitment Insufficiency Charge. However, this is not accurate, and the Company cannot answer the question posed.

DATA REQUEST

1_16 Under Rider D.R.S., is it the Company's intention to interrupt participating customers so that the customer's contractual interruptible load (e.g., 225 MW for Ebon in Phase 2) is not included in the summer peak load of KPCo as reported to PJM for purposes of establishing KPCo's FRR capacity obligation? If this is not correct, please provide an explanation.

RESPONSE

Correct. See the response to AG-KIUC 1-22 for additional information.

DATA REQUEST

1_17 Please provide the average monthly on peak and off peak LMPs at the AEP-Dayton hub for the most recent 12 months.

RESPONSE

The requested information is publicly available at https://dataminer2.pjm.com/list.

DATA REQUEST

1_18 Refer to Mr. West's Direct Testimony at page 6, line 10.

- a. Please provide the support for the statement: "Ebon will invest over \$250 million in order to develop and construct the Ebon Facility at the site."
- b. Please reconcile the \$250 million investment amount with the contract provision at paragraph 5 ("The Customer plans to invest at a minimum \$50 million at the Customer's Facility and to create at least 50-100 new permanent fulltime jobs by June 2024 (or sooner), when the Customer's Facility is expected to begin full operations.").

RESPONSE

a., b. The \$50 million figure was an early minimum estimate of investment by the customer in the site improvements necessary to develop and construct the Ebon Facility at the site. The total estimated capital costs of facility and site improvements, including computing equipment cost (as represented by Ebon), has increased to approximately \$250 million. See also the Company's response to AG-KIUC 1-20 for a breakdown of the costs.

DATA REQUEST

- **1_19** Refer to the contract statement (paragraph 5) that the Customer plans to create 50-100 new permanent full-time jobs.
 - a. Is the Customer committing to add 50-100 full-jobs, or is this simply a "plan?"
 - b. Are all of the jobs located at the facility? If not, please explain where the jobs will be located.
 - c. Please provide a description of each job and the expected wages that will be paid to the employee.

RESPONSE

- a. The Company has been informed by Ebon that Ebon is committed to hiring 50-100 jobs. Ebon has been working with Eastern Kentucky Concentrated Employment (EKCEP) to create job descriptions and find employees for these full-time positions. KPCO_R_AG-KIUC_1_19_Attachment1 contains the EKCEP job announcement.
- b. The Company has been informed by Ebon that the jobs will be located at the Ebon Facility.
- c. KPCO_R_AG-KIUC_1_19_Attachment2 contains correspondence from Ebon describing the expected wages and the job descriptions. EKCEP provided the wage data to Ebon.

See also the Company's responses to AG-KIUC 1-19, JI 1-2, JI 1-3, JI 1-6 and JI 1-38.

Witness: Amanda C. Clark

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Job Title	Wage		Wage		KY Wage Entry Level		KY Wage Median		KY Wage Experienced		Local Employers Hourly	
Project Manager	\$	47.73	\$	99,290.00	\$	41,376.00	\$	72,131.00	\$	130,939.00		\$38.00
Business Dev. Mgr.	\$	57.76	\$	120,130.00								
Business Dev. Assoc.	\$	29.60	\$	61,570.00								
Human Resource Mgr	\$	60.69	\$	126,230.00	\$	52,304.00	\$	89,707.00	\$	151,377.00	\$	32.00
Finance Manager	\$	63.32	\$	131,710.00	\$	53,782.00	\$	100,449.00	\$	203,487.00	\$	52.00
Electrical Engineer	\$	48.93	\$	101,780.00	\$	59,783.00	\$	88,230.00	\$	129,639.00	\$	46.00
Network Engineer	\$	57.94	\$	120,520.00	\$	44,359.00	\$	74,342.00	\$	158,594.00		
Warehouse Supervisor		\$37.03	\$	77,030.00	\$	35,697.00	\$	59,437.00	\$	99,194.00	\$	29.00
Facility Maint. Eng.					\$	35,614.00	\$	60,744.00	\$	100,409.00		
Facility Maint. Tech.	\$	28.55	\$	59,380.00	\$	21,939.00	\$	37,518.00	\$	61,686.00		
General Maint. Workers	\$	20.76	\$	43,180.00	\$	21,939.00	\$	37,518.00	\$	61,686.00	\$	24.00
Security Guards												
(BWH Security) (DSI Security)					\$ \$	14.00 10.00			\$ \$	16.00 14.00	\$ \$	14.00 10.00

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Project Manager

Job Location: United States Recruiting Numbers: 2 Email: <u>hr.us@ebang.com</u>

Responsibilities:

- Work closely with our senior construction team to develop and manage timelines and milestones for the development of greenfield projects.
- Develop project scope and objectives and ensure technical feasibility.
- Coordinate and organize project resources to improve collaboration and efficiency of project teams and personnel.
- Develop planned project budget and implementation. Evaluate and monitor ongoing work and/or project costs.
- Prepare and submit all relevant reports, including specifications for materials and equipment.
- Establish and maintain relationships with third parties/suppliers.
- Develop a risk management plan to proactively identify and manage project risks.
- Take ownership and responsibility for the final outcome of the project.
- Find bids and help negotiate key deals with contractors and suppliers.
- Manage technical analysis and reporting of potential computing equipment projects.
- Lead the process of obtaining state, federal and local permits and licenses.
- Manage relationships with project stakeholders.
- Use a variety of software tools to keep track of all relevant documents and drawings.

- Understand and explain complex engineering and construction terminology to internal/external stakeholders.
- Commuting/relocation ability.

Qualifications:

- Bachelor's degree in a STEM field preferred or significant experience in business administration or electricity related area.
- At least 3 years of experience in the field of professional services project management support.
- Experience or understanding of Blockchain and other digital assets or a strong interest in learning more.
- Experience as a project manager directing execution of related electric utility projects is highly desirable (EPC contracting methodology a plus).
- Familiar with the U.S. power industry, building/energy/IT knowledge and high and low voltage power knowledge are preferred.
- Excellent communication and negotiation skills.
- Highly adaptable with a self-starter mindset.
- Fluent English level, good communication and professional organization and coordination skills, strong sense of responsibility.
- Proficiency in Mandarin preferred.
- Understand project budgeting and financial processes.
- Strong planning and organizational skills, with the ability to view the big picture, analyze opportunities and associated risks.
- Willingness for long-term business trips.

Business Development Manager

Job Location: United States Recruiting Numbers: 2 Email: <u>hr.us@ebang.com</u>

Responsibilities:

- The Business Development Manager will be a key member of the Business Development team and will be supporting the POW team throughout the entire client engagement.
- Drive and manage client relationships both domestically and internationally and act as first point of contact for responsible key clients.
- Help lead the initiative on both the buy and sell side.
- Source prospective suppliers internationally on the supply side to ensure competitive equipment costs.
- Research prospective clients to understand possible synergies as well as identify and escalate problematic situations on a need basis.
- Help lead Advisory client engagements to ensure delivery of services and deliverables required for a successful project.
- Understand POW economic modeling to be able to provide proper guidance to advisory clients.
- Work closely with Operations team to ensure SOW/deliverable expectations are aligned.

Qualifications:

- 2+ years experience in BD, management consulting, investment banking or other similar client facing roles.
- Bachelor's degree required, specifically in business/economics/finance or something involving a quantitative element.
- Strong Excel modeling and PowerPoint skills.
- Exceptional energy, interest, and experience in building things from the ground up and delivering real results.
- Deep knowledge of our industry not required, but a strong interest in as well as a willingness to learn about crypto is key.

- Fluent in Chinese and English, with certain business negotiation and project public relations work.
- Working experience in US electric power industry. Willingness to long-term business trip.

Business Development Associate

Job Location: United States Recruiting Numbers: 2 Email: <u>hr.us@ebang.com</u>

Responsibilities:

- Responsible for customer development in North American market, including social media, exhibition, customer visit, etc.
- Defining and proposing sales targets and growth margins for the account, ensures their achievement with sales activity and sales lead.
- Establishing and develop account relationships based on a defined strategy.
 Acts as focal point for problem resolution and monitors customer claims.
 Plans, facilitates and conducts customer negotiations.
- Being responsible for the development of sales strategies for accounts by providing the customer's current business and long-term plans.
- Selling products/solutions/services to customers, focusing on volume, mix and profitability targets for assigned Business Unit.

Qualifications:

- Accept continues travel and urgent response.
- Willingness to long-term business trip.
- Fluent in English both in Written and Oral.
- A strong gumption, target-oriented, solutions-oriented approach, collaborative and strong communication skills.
- 1-3 Years' experience in crypto mining sales.

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HR

Job Location: United States Recruiting Numbers: 1 Email: <u>hr.us@ebang.com</u>

Responsibilities:

- Administrator for all HR & payroll systems.
- Collaborate with HR Manager, business units, and stakeholders on all HR functions.
- Recruits, interviews, and facilitates the hiring of qualified job applicants for open positions; collaborates with departmental managers to understand skills and competencies required for openings.
- Conducts system job changes, background checks, employment verifications and unemployment notices.
- Executes weekly payroll and financial reporting.
- Implements new hire onboarding, offboarding, benefits open enrollment and employee engagement programs.
- Handles employment-related inquiries from applicants, employees, thirdparties, and supervisors, referring complex and/or sensitive matters to the appropriate staff.
- Reviews, tracks, and documents compliance with mandatory and nonmandatory training and work assessments.
- Maintains compliance with federal, state, and local employment laws and regulations, and recommended best practices.
- Maintains knowledge of trends, best practices, regulatory changes, and new technologies in human resources, talent management, and employment law.
- Performs other duties as assigned.

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Qualifications:

- A minimum of two years of human resource experience required.
- Excellent verbal and written communication skills.
- Excellent interpersonal, negotiation, and conflict resolution skills.
- Excellent organizational skills and attention to detail.
- Excellent time management skills with a proven ability to meet deadlines.
- Ability to work independently or with a team as necessary.
- Strong analytical and problem-solving skills.
- Ability to prioritize tasks and to delegate them when appropriate.
- Ability to act with integrity, professionalism, and confidentiality.
- Proficient with Microsoft Office Suite.
- Ability to quickly learn the organization's talent management, payroll and benefits systems.

Finance Manager

Job Location: United States Recruiting Numbers: 1 Email: <u>hr.us@ebang.com</u>

Responsibilities:

- Corporate Financial Planning & Analysis (Corporate FP&A) is responsible for providing Senior Management with strategic analyses of the Firms global businesses, the Firms annual budget, and other related financial information utilized in strategic decision-making.
- Corporate FP&A is also responsible for reporting financial forecasts and related analyses to various stakeholders, including the Firms regulators.

- Corporate FP&A collaborates closely with business segment FP&A and reporting teams, Corporate Treasury, and the Risk Department on various aspects of its deliverables.
- Submitting annual and quarterly P&L forecasts and report performance against key metrics on a monthly, quarterly and ad hoc basis.
- Preparation, consolidation, review and analysis of a number of key forecasting activities including but not limited to: budget, forecast, stress testing, pro-forma modeling, sensitivity analysis.
- Analyze forecasting models, earnings and financial sensitivities, and strategic initiatives.
- Partner with various internal teams to conduct expense modelling and management activities.
- Communicate and coordinate effectively with partner teams (e.g. Capital, business aligned FP&A, Treasury, Product Control, Human Resources) to drive successful outcomes.
- Support ad hoc financial analyses and projects as required.
- 3-5 years of experience in financial services, financial planning and analysis, product control, financial analytics, or capital planning, including performing financial forecasts and providing financial analyses that highlight key drivers and dependencies impacting results and the overall health of the organization across revenues, expenses, and resources.

Qualifications:

- Excellent analytical, writing and presentation skills, including ability to summarize complex business problems and detailed analyses with clarity and brevity.
- Excellent communication, interpersonal, problem solving and client service skills.
- Ability to influence and advise senior leadership.

- Adept at working independently in a fast-paced environment and handling complexity and ambiguity.
- Proven track record of leading and working with teams and ability to work across organizational boundaries.
- Strong organizational skills, including the ability to coordinate, prioritize and manage multiple deliverables.
- Significant prior experience analyzing P&L and financial data and managing large data sets.

Electrical Engineer

Job Location: United States Recruiting Numbers: 4 Email: <u>hr.us@ebang.com</u>

Responsibilities:

- Lead in the development of prototype design of data center electrical infrastructure for improved reliability, efficiency, speed to market, and cost.
- Create criteria to evaluate the benefits and feasibility of the solution for scalable deployment.
- Cross-functional collaboration with other teams including Network Engineering, Hardware Engineering, Network Engineering, Operations, and construction teams.
- Provide technical due diligence review and evaluation for the data center site selection process.
- Develop strong industry relationships with other data center peers and organizations to remain current on industry trends and future directions.
- Travel domestically to data center sites for engineering studies, electrical systems audits, and collaboration with local teams as required.

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Qualifications:

- BS in Electrical Engineering or related field.
- 2+ years of professional experience in electrical systems design, construction, operations, and maintenance.
- Electrical Professional Engineer registration.
- Experience in high voltage substation design, medium voltage distribution systems, mission-critical power distribution, generators, UPS, PDU, and Building Management System.
- Knowledge of international standards including IEC, CE and EN.
- Cross-discipline knowledge of complete critical facility systems.
- Proven troubleshooting and analytical skills.
- Experience providing solutions to complex projects under pressure.
- Proven presentation and communications skills.

Network Engineer

Job Location: United States Recruiting Numbers: 2 Email: <u>hr.us@ebang.com</u>

Responsibilities:

- Manage escalated incidents and work closely with engineering, field technicians, and telecommunication carriers to resolve service issues.
- Validate problem descriptions and perform detailed diagnosis.
- Track and update problems in a ticketing system.
- Perform scheduled configuration changes to network switches and routers, firewalls, and wireless devices.
- Participate in a rotating schedule with other members of the team, including weekends as needed.
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- Author quality documentation, write automation tools/scripts and deliver trainings associated with their functional area.
- Be either able to work on-site as needed.

Qualifications:

- 5+ years of experience designing and implementing enterprise network solutions in a senior-level role.
- Bachelor's Degree in Engineering, Computer Science, Information Technology, or a related field.
- Deep understanding of network protocols, Internet architecture, and network for cloud computing.
- Extensive routing experience (BGP, OSPF, EIGRP, etc.) including configuration, redistribution, and troubleshooting.
- Strong understanding of data center infrastructure and operations.
- Able to work in and support a fast-paced and growing environment.
- Strong interpersonal and communication skills, able to interact with end-users of all levels.
- Strong troubleshooting skills.

Warehouse Supervisor

Job Location: United States Recruiting Numbers: 2 Email: <u>hr.us@ebang.com</u>

- Asset management: Responsible for the overall asset management of the site (e.g. storage, inventory, reporting, etc.).
- Supervise the functions and working of the warehouse workers.
- Delegate and assign tasks and targets and evaluate the work of the staff.

- Adhere to the compliance of all legal and safety procedures.
- Supervise proper shift allocations and ensure efficiency of all warehouse staff.
- Organize and conduct necessary training activities for the staff and workers.
- Ensure the proper functioning and safe operations of all warehouse tools and equipment.
- Work effectively with other managers within a functional team and supports new team members.
- Drive specific initiatives that have proven business results.
- Proactively think beyond the explicit assignment to ask second-order questions and identify additional analytic needs.
- Accurately, quickly, and clearly answer questions related to your area of focus.
- Effectively prepare and run internal meetings with supporting analytics and data.
- Additional responsibilities as assigned.

Qualifications:

- Bachelor's or associate degree in management, administration, supply chain, customer service, or 5 years working experience in product distribution to customer base.
- Knowledge of the safety and legal documentation processes for handling related warehouse activities (MSDS, Equipment checklist, BOL).
- Working understanding of Warehouse Management System.
- Should have excellent leadership and administration skills and abilities.
- Strong motivational, effectual team building, and decision-making skills.
- Ability to effectively manage time and resolve crises.
- Must be comfortable repeatedly lifting up to 75 pounds unassisted and maneuvering product 150 pounds unassisted or via team lift.
- Able to read and comprehend English to ensure your safety and the safety of those working around you.

• Ability to work overtime as needed.

Facility Maintenance Engineer + Facility Maintenance Technician

Job Location: United States Recruiting Numbers: 2 + 5 Email: <u>hr.us@ebang.com</u>

- Performing highly diversified duties such as install, troubleshoot, repair and maintain production and facility equipment according to safety, predictive and productive maintenance systems and processes to support the achievement of the site's business goals and objectives.
- Provide emergency/unscheduled repairs of production equipment during production and performs scheduled maintenance repairs of production equipment during machine service.
- This position has a heavy emphasis on repair functionality and is also eligible for repair bonus.
- Diagnose problems, replace or repair parts, test and adjust.
- Perform regular preventive maintenance on machines, equipment and plant facilities.
- The physical supervision of mining machines and network equipment.
- The daily operation and management of heat dissipation equipment.
- Assists in the configuration and deployment of replacement machines.
- Responds to unit power failures, assists with network issues, and local temperature overheating, etc.) and ensuring the stable operation of the mining machine.
- Providing daily reports for operations and maintenance of machines and equipment.

- Analyzing the requirements, issues, and daily workflow for the operation of the mining facility, while promoting and enhancing the efficiency of the operation and maintenance of the facility.
- Creating technical reports to assist with the compilation of operations and maintenance knowledge base and materials.

Qualifications:

- Good understanding of software; including: Microsoft Office and Outlook, Inventory management, and machine monitoring software.
- Ability to work with your hands and have a mechanical competency.
- Hard worker, results oriented, and ability to learn and analyze quickly.
- Good communication and coordination skills.
- The employee must frequently lift and/or move items over 50 pounds.

We will provide professional and technical training.

General Maintenance Worker

Job Location: United States Recruiting Numbers: 30 Email: <u>hr.us@ebang.com</u>

- Shelf management: Responsible for the planning of the shelving and commissioning of the mining machine after it arrives on the site, and the planning of the shelving of the mining machine after it leaves the site.
- Operation and maintenance efficiency: Responsible for the operation and maintenance of the mining machine to ensure normal operation, and the overall computing power compliance rate is above 95%.
- Fault handling: Responsible for ensuring the timely repair and transportation of faulty miners.

- Data reporting: timely and accurate summary and review of various operation and maintenance data.
- Remote reboots, diagnostics, and repairs with our partners.
- Other work: responsible for other work arranged by company leaders.
- Have certain partner resources for mining machine procurement, sales, maintenance, production, etc.
- Have good pressure resistance, team building ability, communication, and coordination ability.

Qualifications:

• Bachelor's (Optional).

We will provide professional and technical training.

Security Guard

Job Location: United States Recruiting Numbers: 4 Email: <u>hr.us@ebang.com</u>

- You will maintain a high visibility presence and prevent all illegal or inappropriate actions.
- The goal is to detect, deter, observe and report.
- 7 days on and 7 days off shift (12 hour shifts).
- Protect company's property and staff by maintaining a safe and secure environment.
- Carry out security checks on visitors, on arrival and exit.
- Observe for signs of crime or disorder and investigate disturbances.
- Act lawfully in direct defense of life or property.

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- Apprehend criminals and evict violators.
- Take accurate notes of unusual occurrences.
- Report in detail any suspicious incidents.
- Patrol randomly or regularly building and perimeter.
- Monitor and control access at building entrances and vehicle gates.

Qualifications:

- Proven work experience as a security guard or relevant position.
- Ability to handle conflict and complaints.
- Ability to operate detecting systems and emergency equipment.
- Excellent knowledge of public safety and security procedures/protocols.
- Surveillance skills and detail orientation.
- Education: High school or equivalent.
- Must have previous security experience.
- Must be 18 years of age or older.
- Must be able to read, write and understand printed English language.
- Reliable transportation and a valid driver's license and working smartphone.
- Good work Ethics.
- Must be able to understand regulations & follow verbal instructions.
- Must submit to an extensive background check, including criminal history, personal references, employment and education verifications, Department of Motor Vehicle and credit checks if applicable.
- Must be able to pass drug screening test.
- Physical requirements: Indoor and outdoor, temperature ranges from moderate to extreme cold and heat.
- Security: 2 years (Required).

DATA REQUEST

- 1_20 Refer to the contract statement (paragraph 5) that the Customer plans to invest at a minimum \$50 million at the Customer's Facility, and Mr. West's testimony that the Customer intends to invest over \$250 million at the facility.
 - a. Please describe the investments that Mr. West is referring to and the investments that are referenced in the contract.
 - b. How much of the investment is associated with permanent infrastructure, including the 250 MW substation and related distribution facilities, construction of buildings, etc.?
 - c. How much of the investment is associated with computers and servers that are transferable to another location in the event of a change in plans by Ebon or a successor?
 - d. How much of the investment is comprised of the value of equipment (computers, servers, etc.) that is owned by Ebon and has previously been used at another geographic location?

RESPONSE

a. The Company has been informed by Ebon that, in general, the investments include engineering services, construction of the customer-owned substation, site preparation and container placement, container cooling system, and distribution network buildout for the container layout.

b. The Company has been informed by Ebon that the cost of permanent infrastructure is estimated to total approximately \$85 million.

c., d. The Company has been informed by Ebon that the remainder of the estimated investment in the proposed Ebon Facility, or approximately \$165 million, is attributed to computing equipment that will be delivered, installed, integrated and ultimately electrically interconnected at the Kentucky Power substation. Technically, the computing equipment is transferable to another geographic location; however, at this scale, from a business operations perspective, it is highly unlikely. Ebon has no interest in developing a site and infrastructure at such considerable cost (\$85 million) only to move the equipment

to another location. Ebon's computing equipment and business model is flexible and the facility's data processing capabilities could be repurposed for other uses in the fintech industry or big data computing should economic opportunities in the cryptocurrency industry become less economic.

DATA REQUEST

1_21 Please provide a copy of the Company's most recent IRP.

- a. Has the Company performed any IRP or long-term planning analyses that reflect the addition of the Ebon load?
- b. If so, please provide a summary of the analyses that have been performed.

RESPONSE

The Company's most recent IRP was filed on December 20, 2019 in Case No. 2019-00443 and can be accessed publicly at: <u>https://psc.ky.gov/pscecf/2019-00443/sebishop%40aep.com/12202019120748/KPCO_2019_IRP_Volume_A_Public_Version.pdf</u>

a. b. The Company has not performed any long-term planning analyses that reflect the addition of the Ebon load. However, the requested analysis will be included in the Company next Integrated Resource Plan to be filed on or before March 20, 2023.

DATA REQUEST

1_22 Will the Company reflect the Ebon interruptible load as a demand response resource in its FRR capacity plan?

RESPONSE

No. Per the terms of the contract the Customer's interruptible load will be used to peak shave the PJM 5CP hours and thus keep it out of the Company's FRR capacity obligation.

DATA REQUEST

1_23 The D.R.S. tariff appears to allow for 7 failures of curtailment. If Ebon fails to curtail, are the remaining customers held harmless? Please explain and provide the analysis if such an analysis exists.

RESPONSE

The current Commission-approved Rider D.R.S provides for a payback of the discount achieved under the rider by the participating customer if they were to fail to curtail.

DATA REQUEST

- **1_24** With regard to the 2022 PJM transmission charges paid, expected to be paid by KPCo, please provide the following, in Excel:
 - a. The total dollars paid, or expected to be paid, in 2022 for each PJM transmission charge allocated to KPCo pursuant to the AEP East Transmission Agreement (e.g., NITS charge)
 - b. The rate/kW or rate/kWh, as applicable for the charge, associated with the amounts in Part(a) above.
 - c. The billing determinants of KPCo, pursuant to the AEP East Transmission Agreement, that were used to determine the amounts in Part(a) and the rates in Part(b).

RESPONSE

See KPCO_R_AG-KIUC_1_24_PublicAttachment1 for the requested information.

DATA REQUEST

1_25 Please provide the same information as requested in the previous question for 2023.

RESPONSE

See KPCO_R_AG-KIUC_1_25_PublicAttachment1 for the requested information.

DATA REQUEST

1_26 Please provide any available forecasts, in Excel, of KPCo's expected transmission charges for the next 10 years, by year, by type of charge (e.g., NITS, etc.).

RESPONSE

A forecast of Kentucky Power's transmission expenses is not available beyond 2023. See the Company's response to AG-KIUC 1-25 for 2023 transmission expenses.

DATA REQUEST

1_27 Please identify each investment and material expenditures (in the aggregate), by year, known to KPCo, that it will incur during the first 5 years of the Ebon contract. Provide each amount by year together with a description of the activity or project.

RESPONSE

The Company objects to this request on the basis that it seeks information that is neither relevant to this proceeding nor reasonably calculated to lead to the discovery of admissible evidence and because the request is overly broad and unduly burdensome.

Respondent: Counsel

DATA REQUEST

- **1_28** With regard to Section 2.2A of the contract (three Capital Spares), please provide the following for each Capital Spare that KPCo expects to furnish to Ebon:
 - a. The expected start date and removal date of the transformer (for each transformer).
 - b. The monthly charge to Ebon for the transformer.
 - c. The high side and low side voltage(s) of the transformer.
 - d. The expected installation cost and the removal cost.

RESPONSE

a.-d. A final, executed contract, which would include the details of the requested information, is not available at this time.

DATA REQUEST

1_29 Refer to Mr. West's testimony on page 7. Please provide the following:

a. KPCo's most recent load and energy forecast for at least the next 10 years. State whether this load and energy forecast includes or excludes any Ebon load.

b. A load and capability schedule for the next 10 years, by PJM delivery year, showing KPCo's FRR capacity obligation and each generation resource available to KPCo to meet the obligation. Show separately, resources currently available to KPCo, purchases pursuant to the Bridge PCA and other capacity purchases required to meet the FRR capacity obligation. State whether this load and capability schedule includes or excludes any Ebon load.

RESPONSE

a. Please see KPCO_R_KPSC_1_4_PublicAttachment1 for the requested information. The load and energy forecast includes assumptions for Ebon load additions. This is the latest forecast, but this forecast will not be included in the Company's next IRP as modeling had already began prior to the creation of this forecast.

b. Please see KPCO_R_KPSC_1_4_Attachment2 for the requested information.

DATA REQUEST

1_30 Refer to Mr. West's testimony on page 12, beginning at line 18 (" "). Please confirm that Mr. West is referring to the shown on page 12 of the contract.

RESPONSE

Confirmed.

DATA REQUEST

1_31 Please provide a detailed narrative explaining the basis for the shown on page 12 of the contract. To the extent that these were derived by, or supported by, projections of PJM market LMP prices, please provide the analysis, in Excel, used to develop the

RESPONSE

Please see KPSC 1-12 for the requested information. The were not based on forward projections of PJM market LMP prices.

DATA REQUEST

1_32 Please confirm the following. If any of these items cannot be confirmed, please provide an explanation:



RESPONSE

a. Confirmed.

b. Confirmed,		
c. Not confirmed.		
c. Not commed.		
d. Not confirmed.		

e. Confirmed.

DATA REQUEST



RESPONSE





DATA REQUEST

1_34	Confidential Exhibit 1,	Tab
		If this cannot be confirmed, please provide an
	explanation.	

RESPONSE

Confirmed.

VERIFICATION

The undersigned, Brian K. West, being duly sworn, deposes and says he is the Vice President, Regulatory & Finance for Kentucky Power Company, that he has personal knowledge of the matters set forth in the foregoing responses and the information contained therein is true and correct to the best of his information, knowledge, and belief.

Brian K. West

Commonwealth of Kentucky

Case No. 2022-00387

County of Boyd

Subscribed and sworn before me, a Notary Public, by Brian K. West this 22nd day of December, 2022.

T. Bishop Notary Public

My Commission Expires June 24, 2025

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Notary ID Number: KYNP 32 110

SCOTT É. BISHOP Notary Public Commonwealth of Kentucky Commission Number KYNP32110 My Commission Expires Jun 24, 2025

VERIFICATION

The undersigned, Lerah M. Kahn, being duly sworn, deposes and says she is a Regulatory Consultant for Kentucky Power Company, that she has personal knowledge of the matters set forth in the foregoing responses and the information contained therein is true and correct to the best of her information, knowledge, and belief.

Lerah M. Kahn

Commonwealth of Kentucky)

Case No. 2022-00387

County of Boyd

Subscribed and sworn before me, a Notary Public, by Lerah M. Kahn this 21st day of December, 2022.

Scott F. Bishs Notary Public

My Commission Expires June 24, 2025

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Notary ID Number: KYNP 32110

SCOTT E. BISHOP Notary Public Commonwealth of Kentucky Commission Number KYNP32110 My Commission Expires Jun 24, 2025

VERIFICATION

The undersigned, Amanda C. Clark, being duly sworn, deposes and says she is the External Affairs Manager for Kentucky Power Company, that she has personal knowledge of the matters set forth in the foregoing responses and the information contained therein is true and correct to the best of her information, knowledge, and belief.

Commonwealth of Kentucky)

County of Boyd

Case No. 2022-00387

Subscribed and sworn before me, a Notary Public, by Amanda C. Clark this 21st day of December, 2022.

South F. Bishop

Notary Public

My Commission Expires June 24, 2025

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Notary ID Number: HINP 32110

SCOTT E. BISHOP Notary Public Commonwealth of Kentucky Commission Number KYNP32110 My Commission Expires Jun 24, 2025