



MEMORANDUM

Date: November 25, 2024

To: The Honorable Chair and Members
Pima County Board of Supervisors

From: Jan Leshner 
County Administrator

Re: **Additional Information for December 3, 2024, Board of Supervisors Agenda – American Battery Factory Lease-Purchase Agreement Amendment**

Background

On December 6, 2022, the Board of Supervisors approved a lease-purchase agreement with American Battery Factory (ABF) to construct a lithium-ion battery manufacturing facility on County-owned land at the Aerospace Research Campus (ARC). The project intends to employ 1,000 employees over a three-phase build-out. The Board of Supervisors approved an extension to the project Construction Commencement Date on September 5, 2023, extending the date to November 3, 2023.

In the time since granting of the extension, ABF has performed design and predevelopment activities, began initial grading, conducted multiple funding series, purchased manufacturing equipment, and worked with Tucson Electric Power on the siting of a power substation to support the project.

ABF remains in compliance with the lease payment requirements of the current agreement.

Discussion

ABF has requested an amendment to the lease-purchase agreement, which will be presented to the Board of Supervisors for consideration at the December 3, 2024, Board of Supervisors meeting. The proposed amendment addresses multiple timeline alterations, including the deadline requirement for Construction Commencement Date, Construction Completion Date, the Option Exercise Deadline, timing for Phase I Employment Requirements, and the timing for the Determination of Phase 2 and Phase 3 parcels for the battery manufacturing facility's ultimate buildout.

The requested amended deadlines for each item were informed by several items, including multiple timing of the manufacturing equipment purchase, evaluation of the most effective construction sequence for battery manufacturing and components assembly, analyzing and selecting the ideal location of the TEP electric substation, and the overall project construction timeline as outlined in the attached letter from ABF President John Kem (Attachment 1). The

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proposed amendment also includes an additional payment consideration to be made by ABF to Pima County in the amount of \$10,000.00 to extend the Option Exercise Deadline.

ABF has confirmed that the manufacturing equipment has been purchased and is currently slated for transit and delivery to the United States in the first half of 2026. The sourcing and purchase of this equipment was more time-intensive than ABF originally anticipated, which also resulted in delaying survey work on the site, as well as slowed development of concept design plans for permitting. Additionally, ABF has spent significant time analyzing the ideal sequencing of construction of the production line areas and equipment setup within the facility to ensure optimal training of staff and operations, which has an impact on the overall facility layout and construction phasing.

In addition to these facility design considerations, ABF has been working with TEP and Pima County on locating a 138kV TEP electric facility to serve the operations of the battery manufacturing plant. Given this infrastructure will be the main source of electric power for plant operations across all three phases of the ABF project, as well as serve other future users in the area, technical siting analysis was required. The location of the power facility has been initially located and a request for a Special Contract between ABF and TEP is being processed by the Arizona Corporation Commission to include required public hearings. A request to transfer a portion of the ABF site to TEP will be presented to the Board of Supervisors at a future date in support of development of the power substation.

The memorandum from John Kem provides a more detailed explanation of these items along with an update on ABF's overall progress and anticipated upcoming key milestones. Highlights of these milestones include:

- Refined site permitting submission for Phase 1 of the project occurring January - February 2025
- Begin full-scale site preparation, equipment mobilization and earthmoving between February - April 2025
- Hiring Senior Manufacturing Staff in the spring of 2025
- Back-end operations building completed March – May 2026, with production underway October – November 2026
- Remainder of manufacturing building completed September – November 2026
- Full-production ramp up with 275 to 300 employees in place for Phase 1 of the project between December 2026 and February 2027.

Considering these factors, ABF has requested consideration by the Board of Supervisors for an extension as outlined in Mr. Kem's letter. Mr. Kem will attend the Board meeting on December 3, 2024, regarding any questions you may have.

Recommendation

At full build-out of the three project phases, ABF intends to hire 1,000 employees. ABF currently remains in compliance with the lease payments schedule for the Phase 1 portion of

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the agreement. Based on the factors outlined by ABF, and the anticipated benefits to Pima County from this project, I recommend approval of the amendment.

JKL/anc

Attachment

c: Carmine DeBonis, Jr., Deputy County Administrator
Francisco Garcia, MD, MPH, Deputy County Administrator & Chief Medical Officer
Steve Holmes, Deputy County Administrator
Heath Vescovi-Chiordi, Director, Economic Development Department

ATTACHMENT 1



TO: Heath Vescovi-Chiordi
Director, Pima County Economic Development

11/6/2024

SUBJECT: Progress Update on the American Battery Factory (ABF) Development at the Pima County Aerospace Research Campus (ARC) for the Pima BoS.

Dear Mr. Vescovi-Chiordi,

On behalf of ABF, and as a follow-on of some of the meetings and discussions held between myself and Pima County staff regarding development progress and timelines, I wanted to directly provide an update regarding our progress in development. Additionally, I want to provide a suggested updated timeline on our upcoming activities and schedule for completion.

First and foremost, ABF would like to express gratitude to the Pima County Board of Supervisors and Staff for the approval of the agreement between Pima County and ABF from December 2022.

ABF continues to aggressively pursue and achieve development milestones for the development of our first LFP battery cell manufacturing facility in Pima County at ARC. As a reminder, in Phase 1, ABF is building a 4 GWh Lithium Iron Phosphate (LFP) battery cell manufacturing facility and an adjacent 0.5 GWh Innovation-Foundry line. In Phase 2, ABF will build three additional 4-5 GWh factories to bring the complex to ~19 GWh on a total of 260+ acres at the site.

We have made tremendous development progress as outlined in **Annex A** capturing some of the key milestones to date. In particular, number thirteen is a very significant milestone. The finalization of our main manufacturing production equipment was an extremely time-intensive challenge. The manufacturing equipment scope is complex. We were seeking the very best cutting-edge equipment for LFP prismatic folded battery cells but wanted to ensure to the greatest extent possible, they are integrated with US based controllers/electronics and higher manufacturing management systems to support long term smart manufacturing and cyber security. Wuxi is now finishing the Line design and just to give a sense of the scope - we anticipate delivery of more than 450 containers of equipment in the first half of 2026 for the line which will be almost 1500' long and 180+' wide.

The complexity of the decision-process and the related cyber and controller implications took much longer than anticipated but getting it right in the earliest stages was critically important. Due to the amount of time it took to secure this equipment purchase, we are only now able to seek an extension in the overall construction process, including the anticipated timeline for final construction completion. We did not apply earlier because we wanted to ensure the revised timeline is accurate and achievable so only now is the right time to submit the request. As such, we are respectfully requesting an extension on the Construction Completion Date component of





our agreement, as well as any other time-specific requirements that are aligned with that date in our agreement with Pima County, which is intended to go before the Board on December 3, 2024.

Of note, after seeing the challenge some other US based companies have had with cell chemistry in their battery cell efforts (not the same as ours – but related field) we have recently decided to build the initial line in two parts. Others have struggled with the front end – mixing/coating processes and as a result have had the rest of the factory team waiting with no material to train and commission on. So, we have decided to build and commission the back half of the building and equipment first. This will allow us to hire staff, train, commission and produce initial cells while we work through the harder hiring, training, integration and commissioning of the mixing/coating portion of the final production line.

To assist in formalizing a proposed extension, **Annex B** contains some of the more significant upcoming milestones and their dates. Thank you for your consideration of this request. I will be happy to come in person and answer questions directly with the Board of Supervisors at your December 3rd meeting, or some other date that is convenient for your efforts.

Finally, I think it makes sense now to also figure out the final land agreement and transfer process for the eventual 138 kV site to ensure the land and associated access is fully integrated for the eventual full scale TEP site. It is my understanding that the 138kV is not exclusively for ABF, so it supports Pima County's wider development efforts. TEP previously estimated a potential of 3.5-5 acres of land requirements. Since it will be on the land that is currently part of the lease-purchase agreement between Pima County and ABF – I request your permission to allow us to coordinate the final preferred TEP land location and requirements directly with TEP. We will then coordinate back with the Pima County staff to make the necessary modifications on our ABF lease agreement, if necessary, so Pima can transfer that portion of the property to TEP through whatever is determined as the appropriate mechanism.

We remain tremendously excited by our mutual commitment and partnership to bringing ABF's high end manufacturing facility to Pima County. We will continue to work directly with your excellent Pima County staff and remain open and transparent about our efforts throughout the process.

Professionally,

A handwritten signature in black ink that reads 'John S. Kem'.

JOHN KEM
President, ABF





Annex A – Recent Key Milestones/Tasks as of November 2024

1. Series A Funding Closed (July 2023)
2. Initiation of pre-FEED work (front-end engineering design) work by Bechtel (Sep 2023)
3. Completion of Geotechnical Engineering Services for Phase 1 by Terracon (Tucson), (Oct 2023)
4. Applied for and received approved permit for ground-breaking site work (Oct 2023)
5. Completion of Tucson Cactus Society (TCSS) survey and removal (>300 hrs) of key plants from the initial 70-acre site.
6. ABF Ground-breaking event held on October 26, 2023
7. Completion of LIDAR survey and ALTA surveys by Hilgart Wilson (AZ), (Nov 2023)
8. Submitted ~100 page \$125M Grant proposal to DOE which includes agreement on education-training commitments.
9. Met with County Leadership on April 10, 2024, to discuss updated timeline and permitting
10. Met with PCC Leadership at Pima CC to discuss training and education programs tied to ABF high-end manufacturing (April 9, 2024)
11. Commitment to support the Arizona Office of Economic Opportunity (OEO) on the Employment and Training Administration (ETA) Grant opportunity, Apprenticeship Building America, round 2 (April 2024).
12. Finalized a revised power agreement with TEP at their request (mostly tied to FERC required changes), (May 2024)
13. Formal announcement/agreement with WUXI Lead with their CEO and ABF CEO in China on >\$100M main manufacturing battery cell equipment line (March 2024).
14. Signed numerous agreements for Battery Cell manufacturing input supply needs with US and North American partners. (Apr-Oct 24)
15. Initial Coordination with Pima County and TEP to identify the location for the eventual TEP 3.5-5-acre site for the 138kV facility. Not exclusively for ABF use. (Aug-Sep 24)
16. Formal announcement of partnership with Tinci Materials Texas (a top-tier intl. player in green chemistry operations) to provide select battery chemical materials (Oct 2024 at the Detroit Battery Show)





Annex B – Upcoming Key Milestones/Tasks as of November 2024

1. ABF Submission of Development Concept Permit, using AZ based engineering company. (Nov-Dec 2024)
2. Detailed Coordination with TEP to finalize 138kV site (*and adjacent small 46kV site*) to enable Pima-TEP land agreement (Nov-Jan 2025)
3. Project Manufacturing Equipment Tied Debt Financing Round completion (Dec-Jan 2025)
4. In person discussion and Q&A with Pima Board of Supervisors (3 Dec 2024)
5. Separate smaller equity round closes (Jan-Mar 2025)
6. Site Construction permitting submission (Jan-Feb 2025)
7. Site Prep and Earthmoving effort begins (Feb-Apr 2025). 60-day duration
8. Select Senior Manufacturing staff hiring (Spring 2025)
9. Foundation – Slab on Grade (Apr-June 2025). 70-day duration
10. Back-half Building mostly complete – Phase 1A equipment install (Mar – May 2026)
11. Phase 1 A commissioning, training, and testing complete (Jun-Sep 2026) and in-stride production underway by Oct-Nov 2026. (150 employees in position)
12. Innovation-Foundry Building Equipment Install (Oct 2026)
13. Rest of main manufacturing building mostly complete – Phase 1B equipment install (Sep-Nov 2026).
14. Phase 1 B commissioning, training, and testing completed (Dec-Feb 2027) and full production ramp up underway. (275-300 employees in position)
15. Finalize timeline and construction underway for remaining 15GWh lines in 2027-2029.

