The Cardno team has identified the following areas of technical needs for this project. We have divided the needs by the "Ready, Set, Go" Stages. This document does not cover all components of this project, just the areas where our team requires support from the labs/connectors.

Ready Stage

1. Coding and app development/design to convert *Native Browser* to *Native Browser for Solar*
    a. Convert the existing *Native Browser* website to a mobile friendly, intuitive and easy to use app. *Technical needs: coding, app design, testing and debugging. Current website has its own domain with Adobe Air application. Data is in Excel.*
    b. Expand existing *Native Spec* data base by adding the following parameters *Technical needs: database design (Cardno team will input botanical information once database is updated)*
        i. Plant Height
        ii. Bloom Time
        iii. Establishment Period
        iv. Seed cost
        v. Vegetative management and guidelines
2. Assistance with annotated literature review/feasibility study and initial design considerations associated with incorporating a machine learning (plant ID) component into the app. *Technical needs: machine learning, particularly relating to plant identification; access to research library and appropriate databases.*
3. QA/QC
    a. Utilize InSPIRE project scientists to review app and provide feedback. *Technical Needs: QA/QC*

Set Stage

1. Continued app development *Technical needs: coding, app design, testing and debugging*
    a. Testing and debugging based on customer feedback
    b. Evaluate and integrate the following new parameters into app based on customer feedback, technical integration issues, and cost.

i. stormwater performance (importable to HEC-RAS and SWMM, for example)
ii. carbon sequestration calculation
iii. solar score card data support
iv. wetland indicator status
v. habitat issues and
vi. GIS capability.

2. Machine Learning and app integration: *Technical Needs: Machine learning and app integration and deployment*
    a. Assuming feasibility study conducted during "Ready" stage is promising, we will need to integrate and deploy this capability, including field testing, debugging and upgrading.
3. QA/QC
    a. Utilize InSPIRE project scientists to review app and provide feedback. *Technical Needs: QA/QC*

Go Stage

1. Continued app development *Technical needs: coding, app design, testing and debugging*
2. Machine Learning and app integration: *Technical Needs: Machine learning and app integration*
3. National Marketing: Utilize all project partner networks to distribute NBS nationally. *Technical Needs: Solar developer market data*
4. QA/QC
    a. Utilize InSPIRE project scientists to review app and provide feedback. *Technical Needs: QA/QC*