

## Working Prototype Known Problems Report

Product: Ethereum Energy Exchange

Project Group: The 2x2

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Issues:

1. Transfer of Ether back and forth from account to account uses almost all of your resources.
  - a. Do a `transferEnergy1()` call in the smart contract.
    - i. It will do the transaction but it will use all of your gas funds to do the transaction.
    - ii. The main issue here is that the commands that we are using are not well documented so it is hard to debug.
  - b. Actions to solve this issue:
    - i. Either continue to look for the proper documentation or wait for the proper documentation to be updated/released.
2. Doing a `depositEnits()` or a `transferEnergy1()` call while using TestRPC will give a fallback error.
  - a. Call either `depositEnits()` or `transferEnergy1()` in the smart contract while running TestRPC during testing.
    - i. The fallback error doesn't have any documentation on the TestRPC website therefore it is hard to go about fixing this error.
    - ii. The problem is vague as that is the exact same error message from adding payable modifier to the function.
      1. The issue could be coming from lack of returns since most functions only returns true if it works but what if the web3 library does not work?
  - b. Action to Solve this issue:
    - i. Continue to look for documentation on this issue or wait for the proper documentation to be released/updated.

- ii. Create a generic contract that does the function call in a more simpler manner and do not use the payable modifier yet.
- 3. Currently the user has to input into the dapp their energy they want to transfer which is an issue since in the project scope as a whole, the energy input would be given from the SEAD.
  - a. Simply run the program and see that you have to input energy in yourself.
  - b. Actions to Solve this issue:
    - i. In the future of this project we would hope to hook up the SEAD to the rest of the block chain so that instead of user input it would take energy input from the SEAD.
- 4. Cant use convertToken outside of the Dapp
  - a. The function seems to be having issues when being called from outside the dapp. However when run in a test environment(testRPC) it will error out.
  - b. Action to solve the issue:
    - i. Trial and error with messing around with the function, and looking up documentation. This issue may be able to be solved by just time along with trial/error tests.
- 5. Due to a recent commit which broke Exchange1 functionality on the dapp side. Thus, Exchange Enits through dapp is not working.
  - a. For some reason deployment of contract is not seeing exchange function.
  - b. Actions to solve this issue:
    - i. Need to comb through dapp code to see what is going wrong. It is currently working in the contract ABI.