G.R. Langworth, director of Energy Giant LLC HKSAR, has teamed with B.A. Jaafar, R. P. Sehube, and a team of seasoned international business professionals to fund and implement a local beneficiation program. This program is focused on generating prosperity in the local communities of Moatize, Tete, and along the pipeline / railway rights of way between Moatize via Malawi to Nacala and Palma.

- Our company, Worldwide Transition Technologies ["WWTT"] has arranged at least $4 billion to finance this program in its entirety.
- WWTT will form a Mozambiquan company, Mozambique Transition Tech Deployment LLC, ["MTTD"] to execute this Program under management oversight of WWTT.
- Initially, MTTD will survey all the surrounding area of Moatize to determine:
    - Water resources that can be piped into the community for irrigation and farm development
    - Appropriate farms that can be amended and irrigated to grow produce and money crops in a joint venture with MTTD
    - Appropriate farms that can be irrigated and populated with dairy cattle, or free-range chickens, or goats in a joint venture with MTTD
    - Appropriate farms that can be irrigated, fertilized with manure and our coal-ash fertilizer, then planted with Pakchong 1 grand napier grass in a joint venture with MTTD that will be used as livestock feed and later as cellulose resources for MTTD agri-chemical processing
- MTTD Agro-chemicals will co-venture 4,000 hectares of Pakchong 1 grand napier grass cultivation. VB Tall, a Philippines-developed growth enhancement product, will be used to generate 1,000 tons of grass harvest per year per hectare.
- MTTD Agro-chemicals will purchase the grass harvest from grass farmers along the NLC and in Tete region at $50 per ton 10% of which will support dairy cattle, and goat farms it co-develops with local farmers also in Tete region and also along the pipelines' right of way.
- MTTD Agro-chemicals will purchase the remainder of grass harvest from the farmers for its agri-chemical production. MTTD will deploy Sweetwater Energy's Cellulose-to-Sugar technology to convert 90% of the 4 million tons of grass harvested annually into C5 and C6 sugars, and lignin.
- MTTD Agro-chemicals will ship in from FTTA Florida a series of MTTD agro-chemical matrices, each of which is composed of C5 xylose to xylitol modules, four C6 dextrose to adipic acid / omega-7 modules, four C5 xylose to xylitol / furfural modules, and four lignin to vanillin / carbon fiber modules. These agri-chemical modules will separate C5 from C6 sugars, make high-value chemicals [adipic acid, omega-7, xylitol, & furfural] from the sugars, and make vanillin and carbon fibers form the lignin. Carbon fibers will be combined with special epoxy chemicals to provide feedstock for 3-D printing cells that turn out spare machine parts and bicycles. Each MTTD agro-chemical matrix will process about 85,000 mt per year, generating 17,970 mt or more of high value chemicals and products.
- Pakchong 1 grass farms will be located north and south of the entire Nacala Logistics Corridor railroad. Grass harvests will be shipped via heretofore empty 'dead-heading' railcars back to the Tete agro-chemical matrices. All resulting high-value chemicals and materials will be shipped via the NLC railway back to the Nacala Port for export.

- Location of 1,000 acres close to coal mines where the MTTD beneficiation facility will be built and operated.
- Negotiate an off-take agreement with Ncondezi Energy that will ramp up from 200 MW in the 3rd year from startup to 665 MW by the end of the 6th year from startup. If this cannot be successfully completed, then MTTD will make arrangements to build its own 665 MW coal-fired power plant nearby Tete.
- Survey the Nacala Rail Corridor to determine:
    - Appropriate location for gas pipelines coming from Palma via Nacala to Tete. We will need to bring in 400mmscfd, purchased from gas companies in Palma, for the beneficiation facility, and 400mmscfd for other future facilities' expansion requirements. It will be necessary to follow-the-road from Palma to Nacala to assure access in case of service disruption and repair requirements
    - Appropriate location for diesel fuel pipelines coming from Tete to Nacala, that following the railroad right of way. We will need the pipeline capacity to bring out up to 525,000 bbl/day of diesel fuel for export.
        - We will build three 1,317 km gas pipelines between Palma and Tete, and three 912 km diesel fuel pipelines between Tete and Nacala. Each pipeline will charge a transport tariff from the end user [MTTD Diesel for the gas, Exporter for the Diesel] to cover the CapEx and interest, to cover O&M, and to make a profit from the pipeline enterprise. Part of the profits will subsidize the communities through which the pipelines will pass. These pipelines will invest in community outreach programs: **[1]** A system of 'MediTainers' manned by nurses and nurse practitioners will provide first-aid and emergency care for the communities along the pipeline route; **[2]** The pipeline will partner with a local university whose soil specialists visit farms along the pipeline route to analyze the soils. MTTD will fine-tune its coal-ash based fertilizer that the pipeline will purchase and use to amend each farmer's land along the pipeline. The Pipeline will enter into joint ventures that enable the farmers to plant & harvest crops that flourish in this amended soil. **[3]** In higher density populations along the pipeline, the pipeline will support hot food stations. **[4]** MTTD's community outreach manager will work with local community leaders to develop programs the pipeline funds that address the pipeline communities' changing needs. T**his program will commence on Day One, before any pipeline is laid**.
- MTTD will fund, contract for, and build the gas and diesel pipelines over an initial five year period, using 16"ID segments and Zap-Lok™ interconnection with NOV Tuboscope's TK™ Internal Coating.
- The coal beneficiation facility will be structured from eight (8) matrices of factory modules. Each Matrix will consist of:
    - Three (3) **H2H™** modules, each of which receives 13 mt of natural gas per hour, and combines it with a proprietary molten salt catalysis (operating at <200˚ C.) and 2.1 MWh per mt of gas to form hydrogen gas and highly-branched naphtha. The hydrogen gas provides feedstock for the **S2J™** modules.
    - Two (2) **Coal Processing Facilities** receive and separate coal-ash compounds from coal organic hydrocarbons. These two **Coal Processing Facilities** deliver 91 mt of 'de-ashed' coal organic hydrocarbons per hour to each of four (4) **S2J™** diesel manufacturing modules. Assuming 15% ash, this means that a matrix will receive about 10,000 mt of coal per day, and create 1,540 mt of coal-ash fertilizer, and deliver 8,736 mt of coal organic hydrocarbons per day to the **S2J™** modules. Each **S2J™** module combines the 'de-ashed' coal organic hydrocarbons with a molten salt catalysis process that adds hydrogen gas to transform (or 'hydrocrack') the coal into diesel fuel. This process is self-perpetuating – no additional heat or energy is required. The process operates at less than 300˚ C. and under 20 atmospheres of pressure. **There are no pollution emissions**.
    - The diesel fuel produced by the S2J™ modules will be about 10% higher caloric performance than petroleum-derived diesels, resulting in higher vehicular mileage per gallon. The diesel fuel will exceed EURO VI standards [See our H2H & S2J Product Parameters attachment].

  - One **Flexible Refining Center** will receive the coal-ash fertilizer and mix it with various amines to match the prescriptive requirements of the soil on which each batch will be deployed. This Flexible Refining Center will receive and store diesel for shipment via pipeline to Nacala port for export. This **Flexible Refining Center** will also receive and store highly-branched naphtha which will initially be exported, until a synthetic rubber fabrication plant can be built in Tete which will become a consumer of elastomeric monomers that this **Flexible Refining Center** will manufacture from the naptha.

- A total of eight (8) Matrices will be shipped in to Mozambique from WWTT's Florida Transaction Tech Actualization LLC ["FTTA"], one at a time. Each Matrix will have a complement of about 80 subject matter experts that will set up and operate each Matrix, 3 shifts a day. These eight Matrices will be deployed on a spaced out configuration utilizing 1,000 acres. The facility will utilize a covered conveyor belt to bring sub-bituminous coal from the seller mine(s) to the facility if these 1,000 acres can be co-located within 1 to 2 km of the coal mines. Otherwise, MTTD will utilize 10-ton payload trucks to move coal from mines to the facility. All coal shipments will be sprayed by a topping agent to prevent coal dust pollution. The topping agent is sprayed directly on the coal, excess solution is trapped in a basin so it doesn't spill in between the coal containers. The solution forms a sticky surface that keeps dust from flying off why trucks are moving. Midwest Industries' "Coal CarTopper System®" provides a good solution example, [http://midwestind.com/coal-car-topping-system/].

Advantages of the MTTD Local Beneficiation Program

1. *Rehabilitation and irrigation of land and co-venturing of new agricultural and animal husbandry ventures throughout the local communities in and around Tete, Moatize, as well as along the pipelines route.*
2. *Co-venturing the growth and harvest of up to 4,000 hectares of Pakchong 1 grass, generating 4 million tons [at $50 each to the farmer jv] of harvest annually. Each MTTD agro-chemical matrix will take 85,000 tons of harvest annually and generate 17,970 tons of high value products with a wholesale value of $91.8 million. MTTD agro-chemical matrices, located in Tete will be fed harvests by the dead-heading trains from Pakchong 1 grass farms from Nacala back to Tete.*
3. *Purchase of up to 400mmscfd of natural gas from Palma gas fields without the necessity of liquefying the gas with refrigeration trains, the transporting the gas via our pipeline from Palma to Tete.*
4. *Purchase of up to 80,000 mt of sub-bituminous coal per day at the mine without the necessity of shipping the coal to Nacala for export.*
5. *Transporting up to 525,000 bbls/day of Euro VI standard diesel for export at Nacala via SADC to southern African communities at a standard, fixed below-market price that is not pegged to world petroleum prices.*
6. *Massive annual local farm, supplier, and employee revenues will generate substantial export tariffs and taxation rates on earned revenue we plan to negotiate with the government.*