Women owned businesses in the renewable energy industry

2018
Agenda

- **Who** is BioTherm Energy?
- **Who** are the role-players required to build an IPP?
- **How** does the risk of constructing an IPP project flow?
- **What** are the opportunities available within the RE industry?
- **How** do women access these opportunities? Criteria?
- **What** else can be done?
Who is BioTherm Energy?

BioTherm Energy ("BTE") is the leading African renewable energy project developer with a focus on wind and solar power development

- BioTherm develops, finances, owns, and operates both wind and solar power plants to provide long-term clean electricity on the African continent
- Over 52MW of operational assets in South Africa, including a 4.2MW waste project

### BioTherm Snapshot

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<tbody>
<tr>
<td>Projects Approaching Financial Close</td>
<td>153MW of Wind Projects REIPPP South Africa</td>
<td>131MW of Solar PV REIPPP South Africa</td>
<td>60MW Private Sector Solar PV Project South Africa</td>
<td>19 MW Solar PV Project Burkina Faso</td>
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<td>Over 5GW under development</td>
<td>&gt;1,500 MWs fully permitted, bid ready in South Africa (excluding expedited window)</td>
<td>&gt;80MW’s of PPA’s in RoA in the process of being signed within next 3-9 months</td>
<td>Shortlisted 250MW wind and 230MW solar in Egypt with 233MW of greenfield development in Africa</td>
<td>In addition, over 2GW greenfield pipeline in varying stages of development</td>
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Who is BioTherm Energy?

- Team composition, based on demographics:
  - 60% Black
  - 40% Women
  - 60% Youth

- BioTherm Energy is the **ONLY SOUTH AFRICAN DEVELOPER** with a Black female CEO.

- Women are spread across all parts of the business and are actively involved in the development aspects of the business.
## Role-players in an IPP Project

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<th>ROLE-PLAYER</th>
<th>OBJECTIVE</th>
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<tr>
<td>Dept. of Energy/Government</td>
<td>• Ensure energy security &amp; power generation capacity for the South African economy &amp; its citizens;</td>
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<td>• Push the national development objectives &amp; prioritize economic activity for SA citizens;</td>
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<td>• Prepare &amp; administer an accurate Integrated Resource Plan (“IRP”);</td>
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<td>• Run a fair &amp; transparent REIPP procurement program &amp; select bidders according to RFP; &amp;</td>
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<td>• Maximize value for South African consumers.</td>
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<td>Eskom (“Buyer”)</td>
<td>• Consistently supply energy to South Africa; &amp;</td>
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<td>• Procure renewable energy according to the IRP at the lowest cost.</td>
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<td>IPP (“Seller” &amp; “Borrower”)</td>
<td>• Ensure a high quality facility is constructed &amp; operated according to specification &amp; within budget;</td>
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<td>• Appoint experienced EPC/ O&amp;M Contractors;</td>
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<td>• Sell electricity to Buyer at lowest cost possible;</td>
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<td>• Be a responsible corporate citizen; &amp;</td>
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<td>• Comply with all regulations &amp; obligations under all contracts with Lenders, Buyer &amp; Government.</td>
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<td>Lenders</td>
<td>• Provide low-cost funding for large infrastructural projects; &amp;</td>
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<td>• Ensure all potential risks are mitigated in order to avoid Borrower from defaulting.</td>
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<td>EPC/ O&amp;M Contractors</td>
<td>• Construct &amp; operate a high quality facility at the lowest cost;</td>
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<td>• Secure high quality, experienced &amp; reliable subcontractors at the lowest cost; &amp;</td>
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<tr>
<td></td>
<td>• Comply with all regulations &amp; obligations under contracts with Seller.</td>
</tr>
<tr>
<td>Sub-Contractors</td>
<td>• Help construct &amp; operate high quality facility at the lowest cost &amp; according to specifications;</td>
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<tr>
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<td>• Secure high quality, experienced &amp; reliable subcontractors at the lowest cost; &amp;</td>
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<tr>
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<td>• Comply with all regulations &amp; obligations under contracts with EPC/ O&amp;M Contractor.</td>
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<tr>
<td>Local Communities</td>
<td>• Unlock maximum benefit through employment &amp; procurement opportunities;</td>
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<td>• Benefit from Local Community ownership; &amp;</td>
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<td>• Participate as socio-economic and enterprise development beneficiaries.</td>
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Lenders provide 70-80% of the funding required. Strict funding requirements due to large debt exposure.

IPPs must ensure that Lender requirements are adequately covered – risks filter down to Contractors through back to back guarantees, penalty clauses & warranties in EPC & O&M contracts.

Large companies with strong balance sheets & extensive experience to be able to cover guarantees, penalty clauses & warranties. Guarantee requirements are pushed down on to sub-contractors to manage risk.

Sub-contractors must be able to cover guarantees – minimum usually to the value of the contract between sub-contractor & main EPC/O&M Contractor.
Opportunities available to women owned businesses

- Economic Development commitments:
  - Job creation;
  - Local content;
  - Black ownership in the Seller, EPC & O&M Contractors;
  - Local Community ownership in the Seller;
  - Black top management;
  - Preferential procurement:
    - B-BBEE spend;
    - QSE/EME spend;
    - Women owned vendor spend;
  - Enterprise development contributions;
  - Socio-economic development contributions.
Immediate opportunities: “Low hanging fruit”

- Contracting opportunities during the Construction Phase
  - Site security services;
  - Environmental compliance services;
  - Waste disposal/management services;
  - Fencing of facilities;
  - Catering;
  - Health & safety compliance services;
  - Accommodation;
  - Supply of consumables (health & safety gear, water, office supplies etc.);
  - Civil works – building, trenching, roads, site preparation;
  - Supply of electrical components;
  - Professional services (legal, technical, design etc).
Immediate opportunities: “Low hanging fruit”

- Contracting opportunities during the **Operations Phase**
  - Panel cleaning;
  - Site security services;
  - Environmental compliance services;
  - Waste disposal/management services;
  - Catering;
  - Road maintenance;
  - Health & safety – bi-annual audits;
  - Accommodation;
  - Supply of consumables (health & safety gear, water, office supplies etc.);
  - Professional services (legal, technical etc).
Higher risk opportunities – the “meatier contracts”

- Contracting opportunities with larger values:
  - Substation construction;
  - Powerline structure installations;
  - Turbine foundations (the supply of reinforcing steel, concrete foundation);
  - Testing & commissioning of electrical equipment;
  - Transportation of equipment.
How do women access these opportunities?

- Reach out to IPPs;
- Reach out to EPC/O&M Contractors;
- Reach out to governmental institutions (DTI & DOE);
- Reach out to funding & development institutions (DFIs, UN Women etc.) – provision of guarantees;
- Prove capacity, capability & track record/ experience (especially for contracts that affect critical path of construction timeline & main project activities);
- Ensure administrative documentation is in order (constitutional documents, tax clearance certificates, shareholders’ agreements & share certificates etc.).
What else can be done?

- Conversations must include other role-players;
  - DFIs, Lenders & other financing houses – unique & creative funding structures;
  - EPC & O&M Contractors – joint ventures & supplier development;
  - Government institutions (DTI | DOE) – sustainability of RE industry, industry-wide supplier databases, Special Economic Zones;

- Education & pushing the “women in business” & gender equality agenda:
  - Mentorship of young women by other women in the “trenches”;
  - Promoting women to pursue STEM related professions – socio-economic development initiatives;
  - Advancement of women owned businesses – enterprise development initiatives.

- Women-specific RE business forums:
  - Represented by relevant stakeholders & at integral junctures in the life-cycle of the REIPP procurement program.
“Because I am a woman, I must make unusual efforts to succeed. If I fail, no one will say, “She doesn’t have what it takes.” They will say, “Women don’t have what it takes””

Clare Boothe Luce
Thank You

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