

Annex F

Stakeholder Engagement Presentations

Stakeholder Engagement Meeting

July 2015



The world's leading sustainability consultancy



Why are we here?

- Sembcorp has been selected by the Ministry of Electric Power (MOEP) to develop a 225MW Combined Cycle Gas Turbine (CCGT) power plant in Myingyan Township, in the Mandalay region in Myanmar.
- Environmental Resources Management (ERM), with Resources Environment Myanmar (REM), to undertake an Environmental and Social Impact Assessment (ESIA).
- The “ESIA” will be undertaken to understand potential environmental and social impacts and opportunities in accordance with international standards.
- Purpose of the meeting is to provide an overview of the Project and better understand local views of the Project .

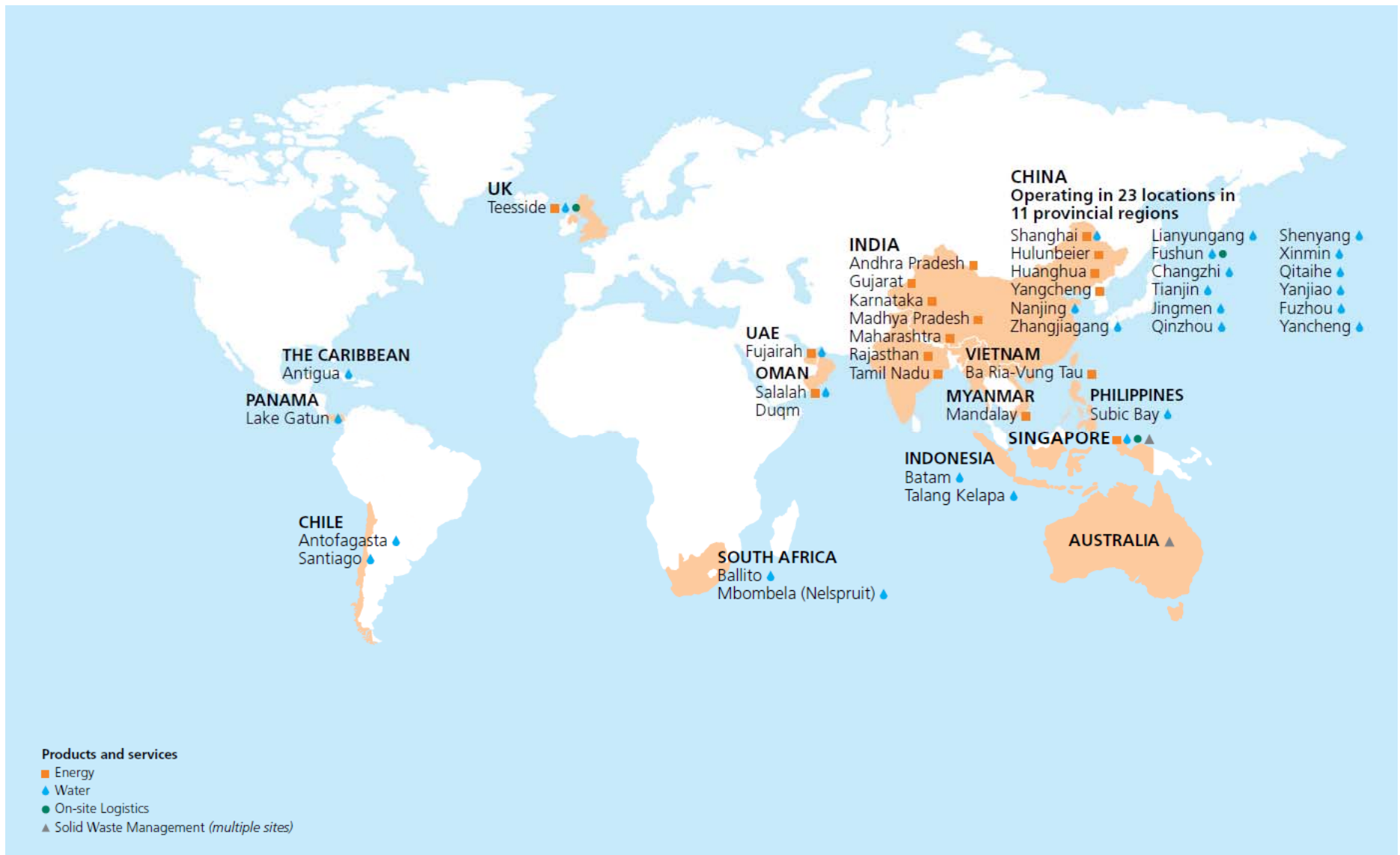


Who is Sembcorp?

- Sembcorp Industries is a leading energy, water and marine group with operations across six continents worldwide.
- With facilities of over 8,200 megawatts of gross power capacity and over nine million cubic metres of water per day in operation and under development, Sembcorp is a trusted provider of essential energy and water solutions to both industrial and municipal customers.
- The proposed Project is the first Independent Power Producer (IPP) Project in Myanmar.

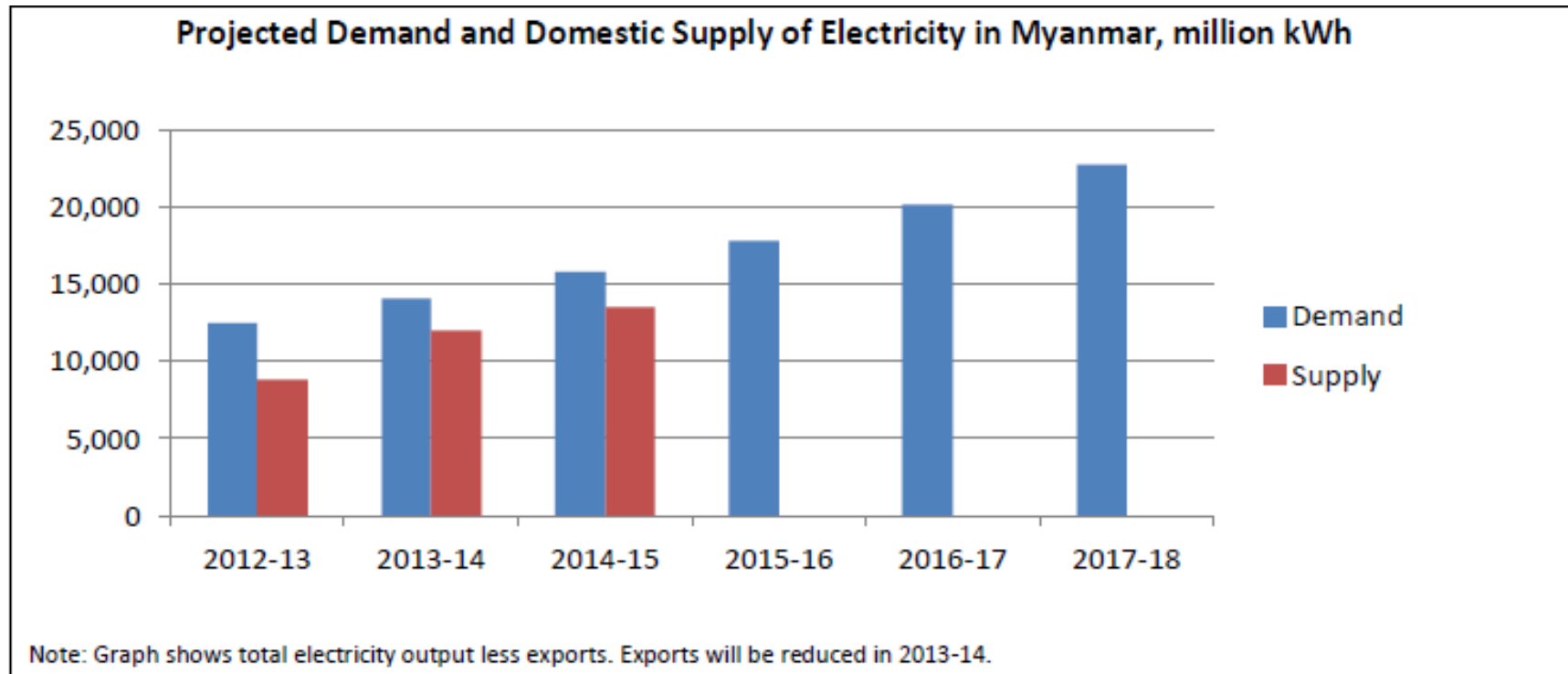


Utilities Global Footprint

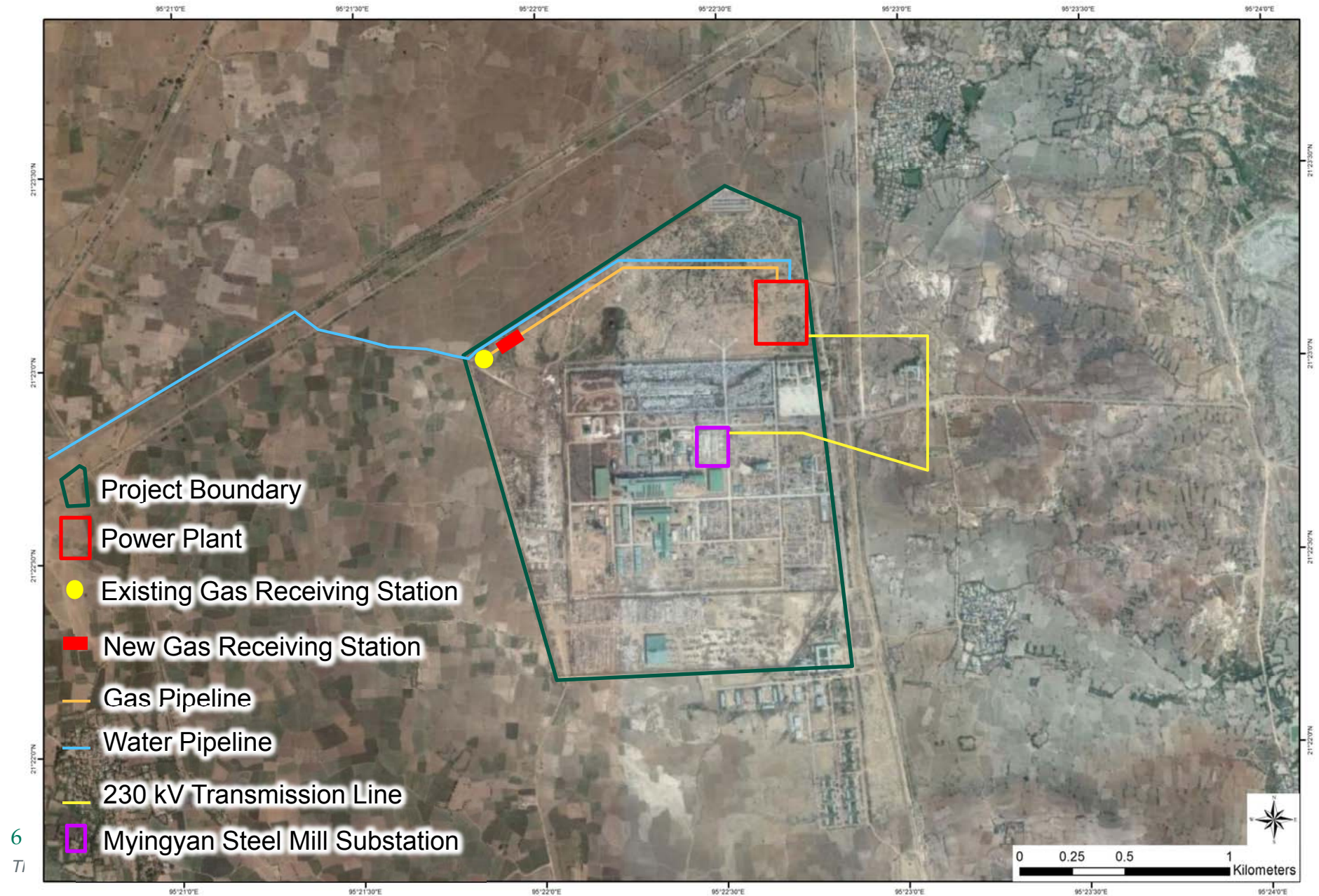


Local Context

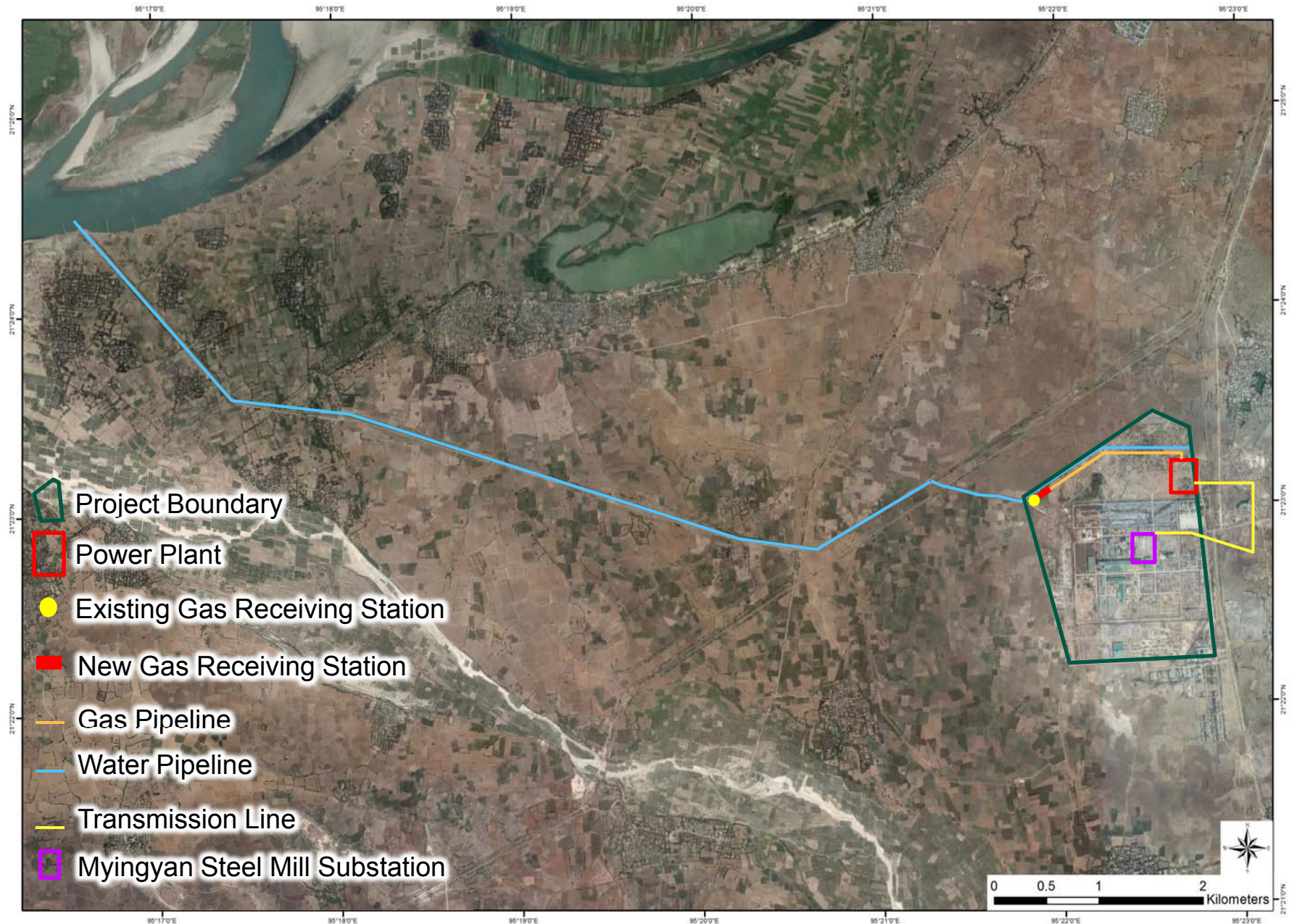
- It is recognized that demand for energy will grow, particularly as the area develops. However, demand will exceed current supply. The proposed Project will help respond to this gap between demand and supply.



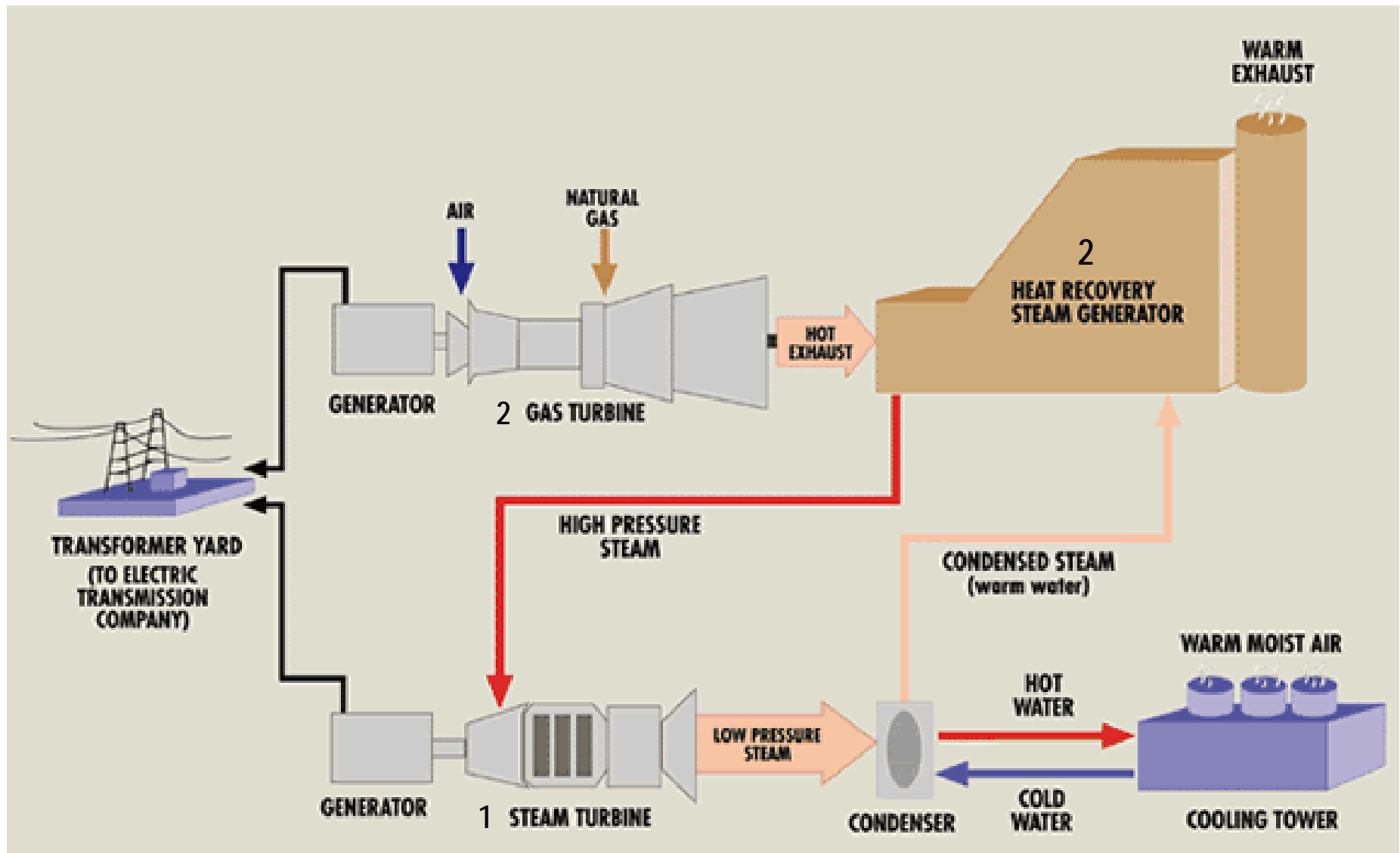
Project Location & Project Components



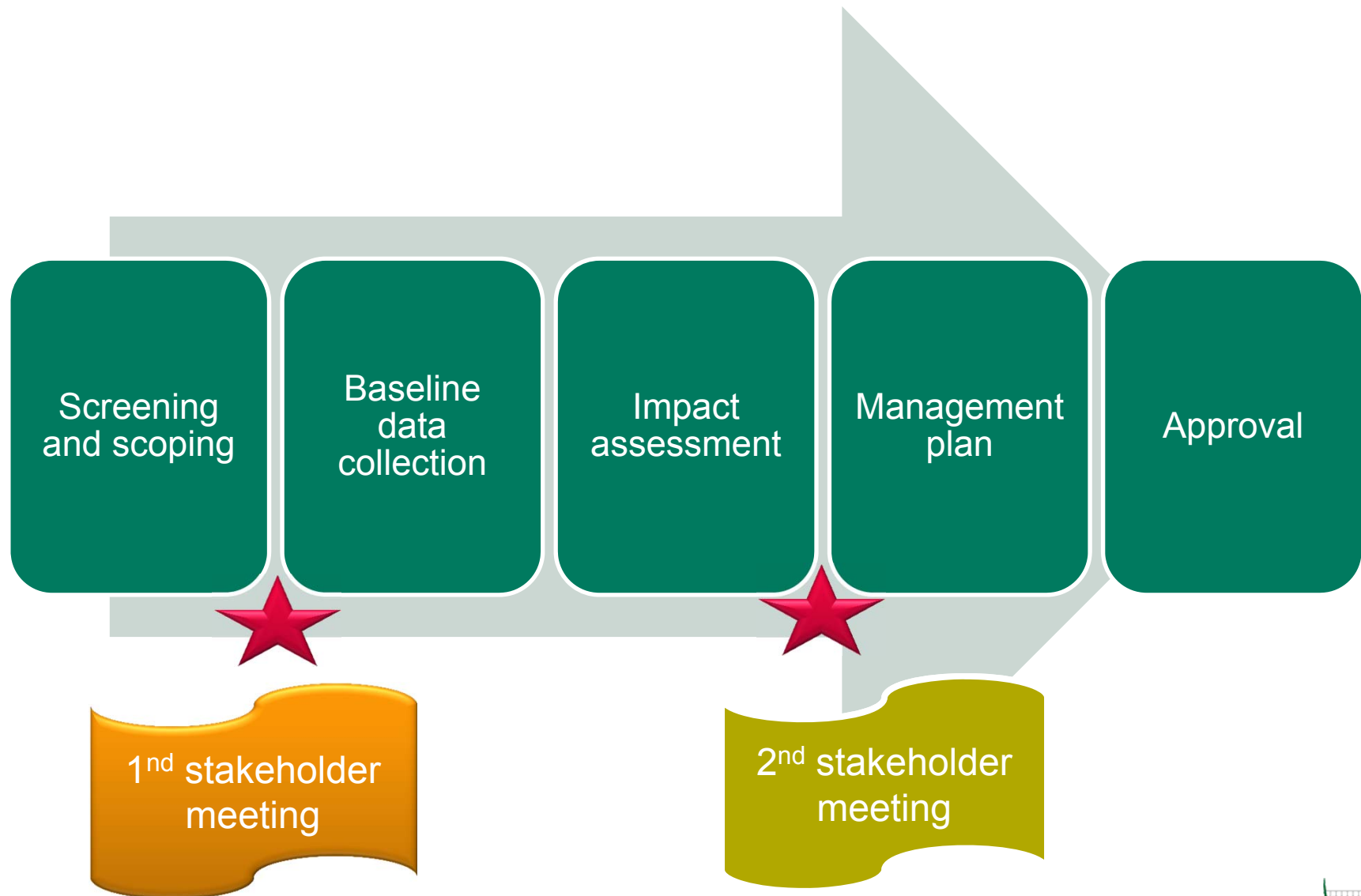
Project Location & Project Components



Overview of the project



Impact Assessment and Management Process



Project Schedule

- Completion of ESIA: **Third Quarter of 2015**
- Start of Construction: **First Quarter of 2016**
- Start of Operation: **First Quarter of 2018**



Schedule for Township and Village Visits

Date	Day	Activity
15th July	Wednesday	Myingyan GAD meeting (Township)
16th July	Thursday	Taungthar GAD meeting (Township)
		Hnan Ywa Village - Taungtha Township
17th July	Friday	Nyaung Kan Village - Taungtha Township
		Hpet Taw Village - Taungtha Township
18th July	Saturday	Sa Khar Village - Myingyan Township
		Thien Village - Myingyan Township
19th July	Sunday	Gyoke Pin - Myingyan Township
		Tha Pyay Thar - Myingyan Township

- The township and villages are proposed for the stakeholder consultation as they are nearby the Project area.

How to contact us

Comments, concerns, queries and questions on the above and the Project in general are welcomed.

Contact details for queries.

Resource and Environment Myanmar Co., Ltd.

B702 Delta Plaza, Shwegondaing Rd., Bahan Tsp., Yangon,
Republic of the Union of Myanmar

Contact phone number: 09-73013448

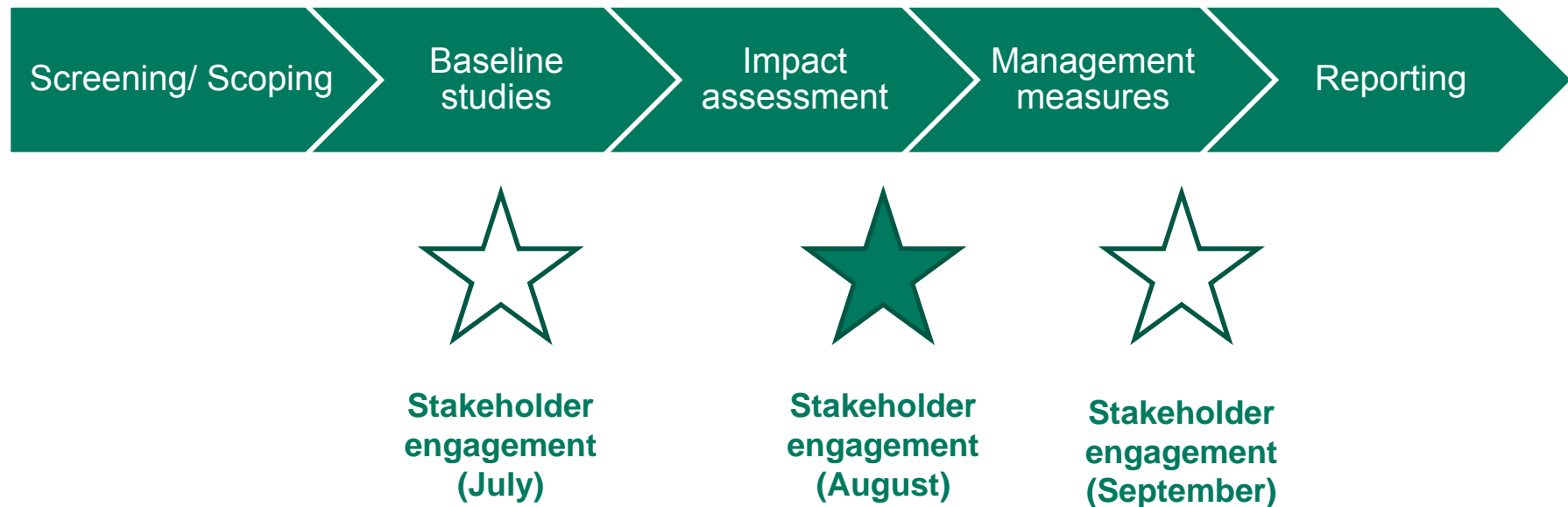
Impact Assessment Overview

August 2015



Impact Assessment Process

To better understand the likely impacts associated with the Project an environmental and social impact assessment is being completed. The assessment is being completed in line with international standards.



Impact Assessment Process



- The **baseline studies** are undertaken to establish an understanding of the existing environment.
- The **impact assessment** identifies what impacts are likely to occur as a result of the Project – i.e. how will the baseline change.
- The **management measures** are designed to minimise the likely negative impacts and enhance the positive benefits.
- The management measures will be **monitored** to ensure they are effective in minimising the impacts.

Purpose and Objectives

The purpose of today is to:

- Provide an update on key issues raised in July
- Present the results of the impact assessment process
- Gather your insights and feedback on the assessment and proposed management

In September we will provide further information on management measures and proposed monitoring.

Project Overview



Utilities: Singapore
SembCogen CCP 3 @ Banyan



Project Schedule

- Completion of ESIA: Third Quarter of 2015
- Start of Construction: First Quarter of 2016
- Start of Operation: First Quarter of 2018

Air Quality

Impact Description	Proposed Management
<p>Construction activities, including site clearing, may generate dust.</p>	<p>A variety of techniques will be used to minimize emissions during construction, including spraying of exposed areas including roads and covering dusty materials and equipment.</p> <p>Air emissions will be monitored monthly during construction.</p>
<p>The power plant will generate air emissions during operation.</p> <p>Given existing activities in the area, air quality is already degraded – i.e. the area is considered to be a degraded airshed.</p>	<p>A variety of mechanisms will be used to reduce emissions – including dry low NOx burners.</p> <p>The emission stacks will be continuously monitored.</p> <p>Emissions outside of the site will be monitored monthly. A monitoring station will be established at Sa Khar village.</p>

Surface Water Quality

Impact Description	Proposed Management
<p>Potential impacts may arise from the disposal of waste, discharge of wastewater, surface water runoff, and erosion and sedimentation.</p> <p>A water intake point will be established on the Ayeyardwady River. Cooling water will be discharged to the Ayeyarwady River.</p> <p>The pipeline from the water intake point to the Project site will be buried to minimize the impacts.</p>	<p>Wastewater will be collected and treated on site in line with international standards.</p> <p>Solid and non-hazardous wastes will be collected and segregated at the point of generation and appropriately disposed.</p> <p>Drainage systems will be maintained and run-off will be minimized.</p> <p>The water intake point and discharge point will meet international standards. Temperature will be monitored bi-weekly and sedimentation will be monitored quarterly.</p>

Soil and Groundwater Quality

Impact Description	Proposed Management
<p>Impacts may arise as a result of potential leaks or spills of oil, lubricants, fuels or chemicals and improper handling of effluent and waste.</p>	<p>Waste will be properly disposed. Chemicals and fuels will be properly stored and handled.</p> <p>A site specific emergency response plan will be developed and implemented.</p> <p>Groundwater will be monitored annually at the site boundary, and at Sa Kha village twice a year.</p>

Community

Potential Impacts	Proposed Management
<p>Economic: The project will generate employment and economic opportunities.</p>	<p>A local content plan will be implemented. The plan will determine what types of opportunities may exist for local villagers in terms of employment.</p>
<p>An accommodation camp will be established to house construction workers.</p>	<p>In addition, a corporate social responsibility plan will be developed.</p>
	<p>A health and safety plan will developed to protect the health and safety of the workforce. The actions set out in the plan will be monitored daily and will be reviewed monthly.</p>



Community

Potential Impacts	Proposed Management
<p>Social networks: There may be a change in social networks as a result of the project.</p>	<p>A social management plan will be developed. This will include a grievance mechanism – so that local villagers can raise concerns throughout the construction and operation of the Project.</p> <p>Further details regarding the grievance mechanism will be provided in September.</p>
<p>Displacement: Those currently using the Project site will no longer be able to use the site.</p> <p>Burying the water pipeline will temporarily displace agricultural activities that occur within the right of way.</p>	<p>The current level of activity at the Project site and along the water pipeline and transmission line are being reviewed to better understand the potential impact.</p> <p>Measures will be implemented to minimize the impact associated with displacement.</p>



Community

Potential Impacts

Health: An increase in population may contribute to an increase in communicable disease transmission.

Proposed Management

The workforce camp will minimize the interaction between the workforce and the villages – reducing the potential for diseases to be passed on to villagers.

A workforce code of conduct will be established, and pre-employment screening will be undertaken.

Vector (e.g. mosquito) habitat will be minimized on site – such as standing water.

Healthcare services will be provided on site for workers.

Health and safety incidents will be monitored and recorded as they occur.

Community

Potential Impacts

Safety: An increase in traffic movements, the presence of the facility and the management of hazardous materials presents safety risks.

Proposed Management

A traffic management plan will be implemented. It will include requirements to bus workers between the camp and the site.

Hazardous materials will be stored and disposed of appropriately (as described earlier).

Security personnel will receive training and their activities will be monitored.

A disaster management plan will be developed to ensure appropriate protocols are in place in the event of a disaster.

Health and safety incidents will be monitored and recorded as they occur.

Noise and Vibrations

Potential Impacts	Proposed Management
<p>Noise: Noise will be generated during construction and operation as a result of construction activities (e.g. pile driving, foundation works) and operation of the gas and steam turbines, steam generators and the cooling tower.</p>	<p>Measures will be implemented to minimize the noise. This includes the establishment of noise barriers and regular maintenance of equipment.</p> <p>Noise will be monitored monthly at the site, and quarterly 500 meters from the site.</p>
<p>Vibrations: Vibrations will be generated during construction and operation through the use of machinery on site.</p>	<p>Given the distance between the site and nearest village, no impact from vibrations is anticipated.</p>

Cultural Heritage

Potential Impacts	Proposed Management
<p>Cultural heritage sites and values may be impacted during construction of the Project.</p>	<p>A chance find procedure will be developed to minimize the impact. The procedure will ensure that if any sites of cultural significance are identified during construction of the Project (including the water pipeline), work will stop and appropriate actions will be taken to ensure that the heritage site is protected.</p>



Greenhouse Gas Emissions

Impact Description	Proposed Management
<p>Greenhouse gas emissions will be generated during construction and operation.</p>	<p>During construction emissions are considered to be insignificant.</p> <p>However, during operation, the estimated emissions from the Project will exceed relevant international thresholds – which means that the Project will be considered a ‘significant emitter’ of greenhouse gas emissions.</p> <p>The Project will implement measures to reduce greenhouse gas emissions, and report annually the emissions that are generated.</p>

Marine and Terrestrial Environment

Potential Impacts	Proposed Management
<p>Land clearing is required during construction which may impact on the natural environment (e.g. dust, disturbance to animals).</p> <p>Animals may be impacted when crossing roads due to an increase in traffic.</p> <p>Night lighting during operation may disturb animals.</p>	<p>Measures will be implemented to minimize the impact. This includes measures to reduce dust, measures to ensure appropriate handling of waste, and traffic management measures (as discussed earlier).</p>

How to contact us

Comments, concerns, queries and questions on the above and the Project in general are welcomed.

Sembcorp:

Address: **30 Hill Street #02-01,
Singapore 179360**

Email: **dennis.foo@sembcorp.com**

Local contact details in Myanmar will be provided in the stakeholder engagement in September.

Stakeholder Engagement Meeting

September 2015



Purpose and Objectives

The purpose of today is to:

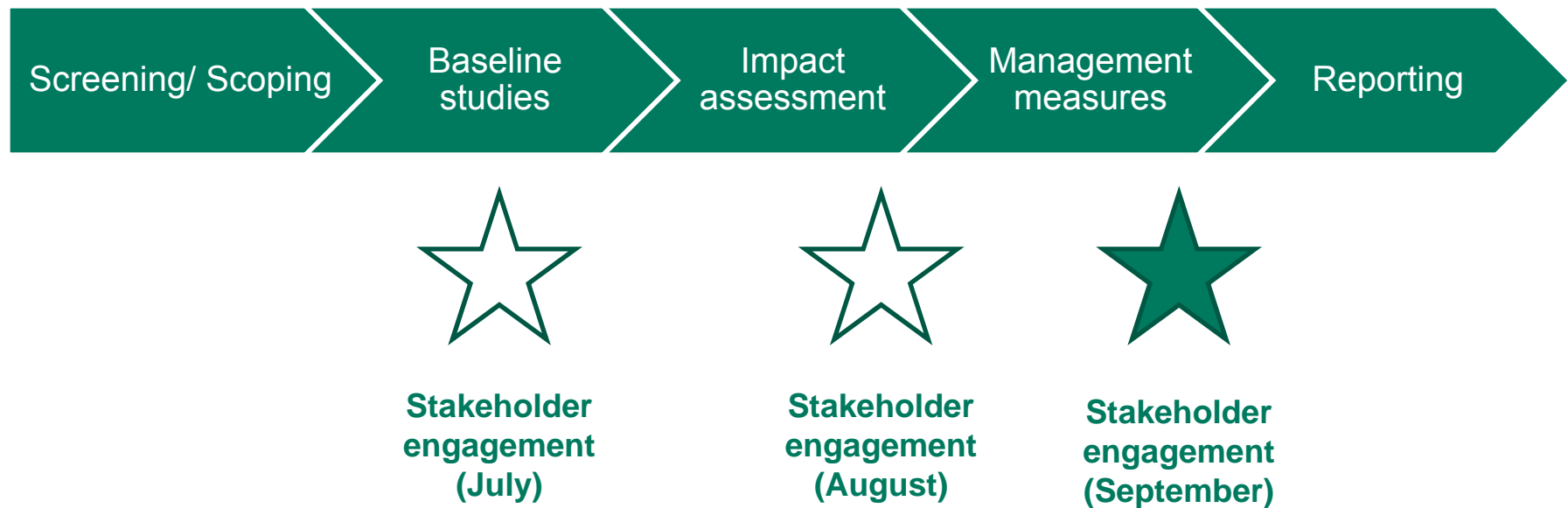
- Provide an update on key issues raised in July and August
- Present the outcomes of the impact assessment process
- Gather your insights and feedback on the project

You can ask questions/ raise your concerns during this meeting or provide feedback at the end of the meeting.

Although this is the last engagement meeting associated with the impact assessment, there will be opportunities throughout the project to provide feedback.

Impact Assessment Process

An environmental and social impact assessment is being undertaken to better understand the likely impacts associated with the project. The assessment is being undertaken in line with international standards.



Impact Assessment Process



- The **baseline studies** are undertaken to establish an understanding of the existing environment.
- The **impact assessment** identifies what impacts are likely to occur as a result of the Project – i.e. how will the baseline change.
- The **management measures** are designed to minimise the likely negative impacts and enhance the positive benefits.
- The management measures will be **monitored** to ensure they are effective in minimising the impacts.

Project Overview



An Example of an Existing Facility



Employment/ Economic

Construction and operation

- Impact: The project will create employment opportunities.

There will be some job opportunities available and it will depend on the skills required by the Project and available in the local villages.

During the construction phase, a temporary camp will be constructed to accommodate the construction workforce.

- Mitigation measure: A local content plan will be developed so that some job opportunities are made available to local villagers. However, this will depend on the skills required by the Project.

Activities

There will be a number of activities resulting from the Project.

- The water pipeline. The pipeline will extend for 14 km – from the Ayeyarwady River to the Project site. The routing is designated by Ministry of Agriculture/MEPE. The pipeline will be buried to minimise the impact.
- The 230 kV transmission line. The routing is designated by MEPE.
- Heavy machinery are transported to the site via the Nyaung Hla landing place.

Please note that the Project will produce and sell electricity to MEPE; and MEPE in turn will be responsible for distribution of electricity.

Water Pipeline and Transmission Line



Air Quality

Construction:

- Impact: Construction activities, including site clearing, may generate dust. This may occur at the Project site as well as along the water pipeline route.
- Mitigation measures: A variety of techniques will be used to minimize dust during construction, including spraying of exposed areas (such as roads) and covering dusty materials and equipment.

Air Quality

Operation:

- Impact: The power plant will generate air emissions during operations that meets the World Health Organisation standards.
- Mitigation measure: A variety of mechanisms will be used to further reduce emissions – including dry low NOx burners.
- Monitoring: Online monitoring system will be installed on the stack to monitor air emissions.

Waste Water Discharge

- Impact: Waste water will be generated from the plant.
All treated waste water will be discharged to the irrigation canal.
- Mitigation measure: Wastewater will be collected within the plant and treated within the plant on site in line with World Bank Group standards and will be discharged to the irrigation channel.
- Monitoring: The water intake point and discharge point will meet international standards. Temperature will be monitored bi-weekly and sedimentation will be monitored quarterly.

Soil and Groundwater Quality

- Impacts: Impacts may arise as a result of potential leaks or spills of oil, lubricants, fuels or chemicals and improper handling of effluent and waste.
- Mitigation Measures: Waste will be properly disposed. Chemicals and fuels will be properly stored and handled.

A site specific emergency response plan will be developed and implemented.

Community Health and Safety

- Impact: An influx of workers may contribute to an increase in the transmission of communicable disease.

An increase in traffic movements, the presence of the facility and the management of hazardous materials presents safety risks.

- Mitigation measures: A range of management measures will be implemented. This includes a workforce camp, a workforce code of conduct, appropriate storage and disposal of hazardous materials.

In addition, an emergency response plan will be developed and a traffic management plan will be developed.

Noise and Vibrations

- Impacts: Noise will be generated during construction and operation as a result of construction activities (e.g. pile driving, foundation works) and operation of the gas and steam turbines, steam generators and the cooling tower.

Vibrations will be generated during construction and operation through the use of machinery on site.

- Mitigation measures: During construction, noise generated from the piling is limited for less than 3 months and the construction will only be carried out during day time. During operation, the design of the noise level will be up to 70 dba, which is in line with the World Bank Group regulations.

Ongoing Engagement

Engagement will continue throughout the life of the Project.

Next steps include:

- Appointment of a community liaison officer who will be the local point of contact
- Establishment of a grievance mechanism
- Continuation of progress updates, including notifications in advance of starting construction activities
- Further engagement on development of the Corporate Social Responsibility plan

Grievance Management

A part of the engagement process, a grievance mechanism will be established.

- The grievance mechanism will be available to all stakeholders.
- If you have an issue or concern, there will be an opportunity to raise it with Sembcorp through the grievance mechanism.
- Further information will be distributed once the grievance mechanism has been finalised.

Corporate Social Responsibility

Sembcorp will be developing a Corporate Social Responsibility plan.

- Key areas of focus will likely be education/ skills development, healthcare and water – we are still working on the details of the plan.
- Further engagement will be undertaken after the plan is developed.

Contact Details

Comments, concerns, queries and questions are welcomed.

Sembcorp

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Email Address: alo.mdy70@gmail.com

Contact phone number: 09972608080