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Brunei Darussalam-Indonesia-Malaysia-Philippines East ASEAN Growth Area (BIMP-EAGA)



Take Away Message

- **Economic, financial, and technical viability** are necessary but **not sufficient conditions**
- ADB's value add **can be non-financial**
- Political commitment seeks identification and quantification of **long term benefits**
- Need **champions** on both sides
- Regional Cooperation is a **sensitive** subject
- **Focus on the long term**—project concept to construction can take 10+ years
- **Incentives and subsidies** play a critical role
- A **business to business** agreement is easier

The Final Report of The ASEAN Interconnection Master Plan Study (AIMS)

1. Background

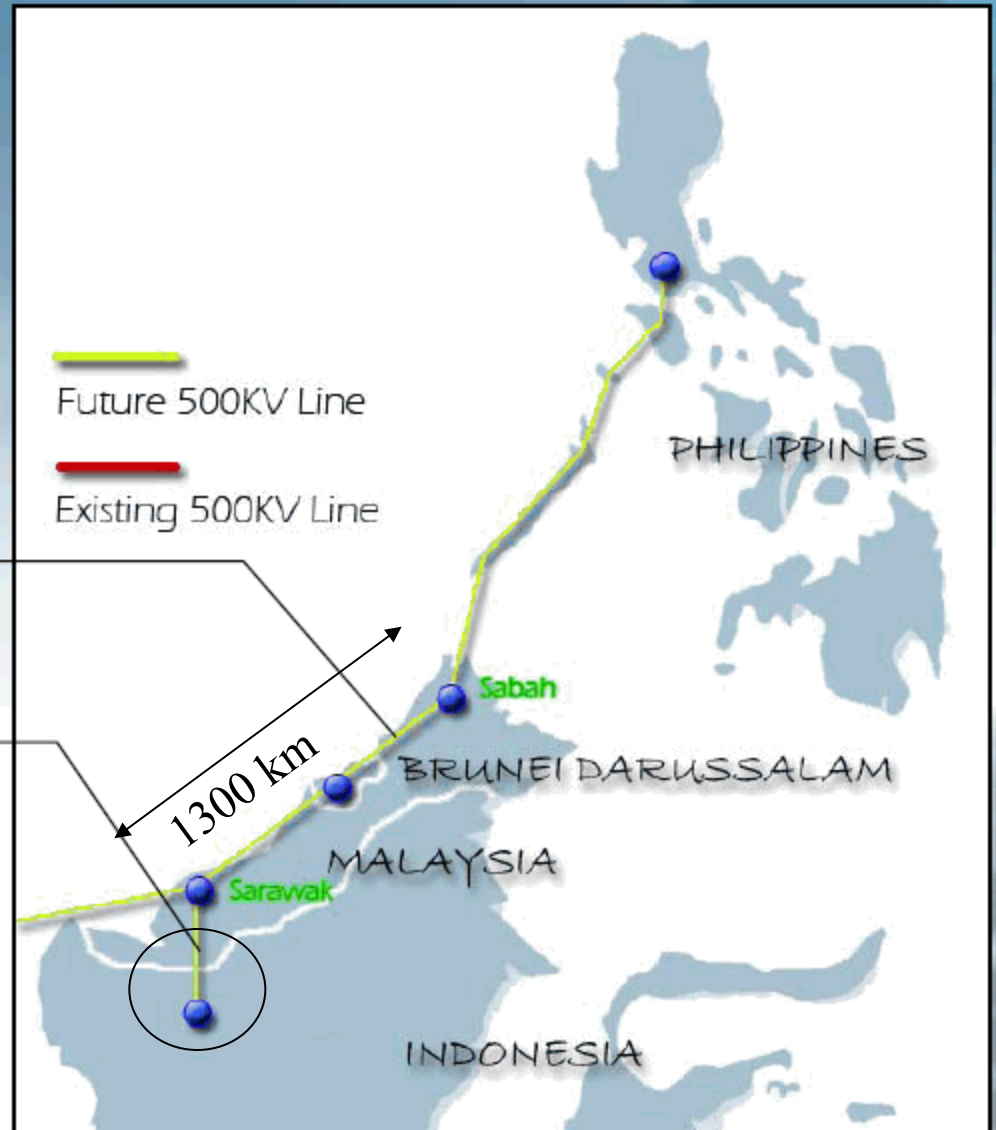
During the 2nd ASEAN Informal Summit in December 1997 in Kuala Lumpur, the head of governments adopted the ASEAN Vision 2020. One of its commitments was to establish interconnecting arrangements for electricity, natural gas, and water utilization within ASEAN through the ASEAN Power Grid and Trans-ASEAN Gas Pipeline. Subsequently, the 17th Senior Officials

Sabah and Sarawak are interconnected in 2007 and to be considered as one integrated system. Power interconnection between Sabah/Sarawak and West Kalimantan is required in 2007. The study was conducted based on assumption that power of 300 MW is exported to West Kalimantan without taking the system constraint of West Kalimantan into account. In most time of power exchange, Sarawak exports power to West Kalimantan.

This is the first BIMP-EAGA regional project, first project involving sovereign and non-sovereign financing, and first energy project in Malaysia since 1996

Sabah/Sarawak - Brunei

Sarawak – West Kalimantan





The Joint Meeting with APG Consultative Committee (APGCC)

ASEAN Power Grid Financing Options

Working Group No. 6 Resources Development

**26 February 2008
Indonesia**

WEST KALIMANTAN
(INDONESIA) –
SARAWAK
(MALAYSIA)

1). West Kalimantan
– Sarawak 275 KV
Interconnection

PLN
SEB

- Detail F/S and Basic Design 275 kV Transmission for Indonesia side by PLN, completed in 2003
- Trans Borneo Power Grid Development and Energy Trading Study, in whole Borneo (Kalimantan) completed in 2004
- Proposed:
 - in 2011 SEB sell 100 MW to PLN
 - in 2013 SEB sell 200 MW to PLN

proposed:
Malaysia Side by
SEB

Indonesia side,
two options:

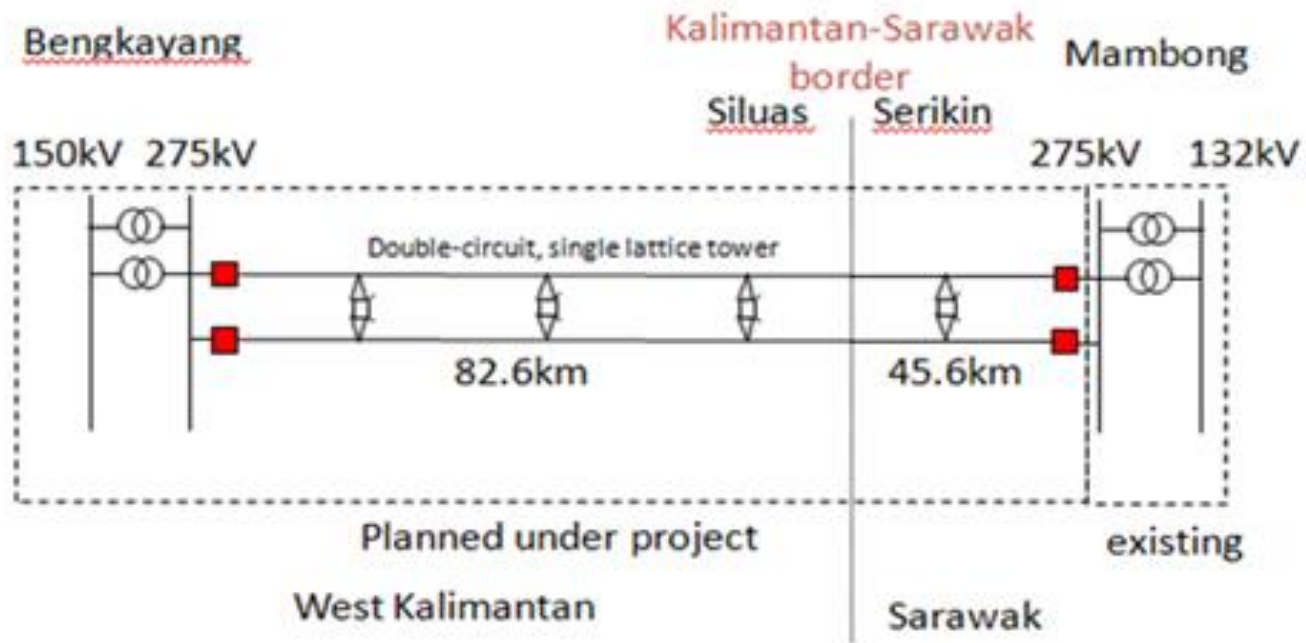
1. ADB
2. PLN budget

- Next steps: Study of common operation procedure, Review Power Development Program of both countries, Detail survey and Design for the transmission, Funding.
- Interconnection between Mambong S/S (Sarawak) to Bengkayang S/S or Ngabang S/S (West Kalimantan)

Sarawak-West Kalimantan Interconnection (Benkayang to Mambong)



Figure 1: Cross-Border Transmission Project

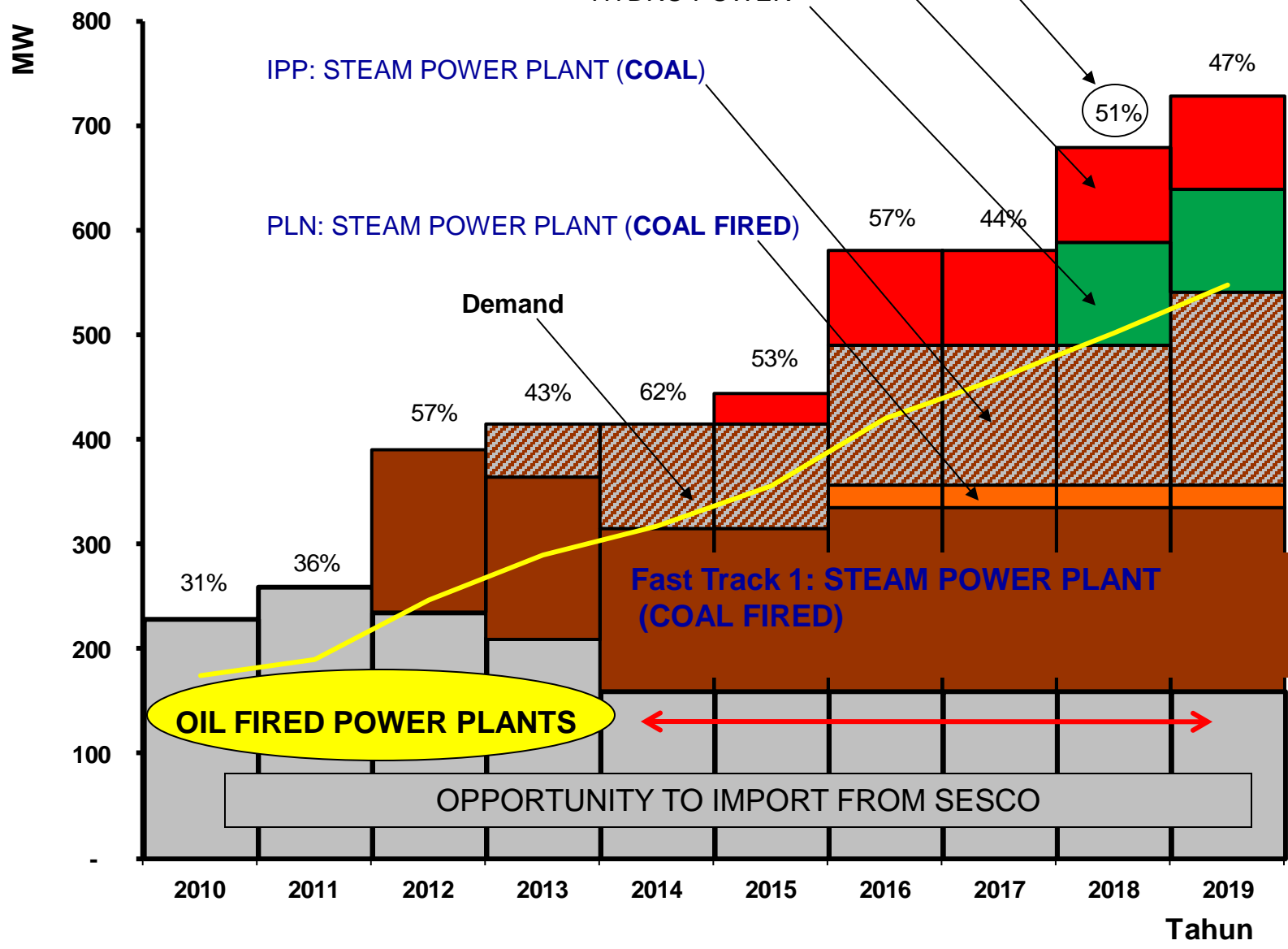


Sovereign Loans: ADB (\$50 million),
AFD (\$50 million) to Government of Indonesia

Non-Sovereign Corporate Loan:
ADB (\$45 million) to SESCO

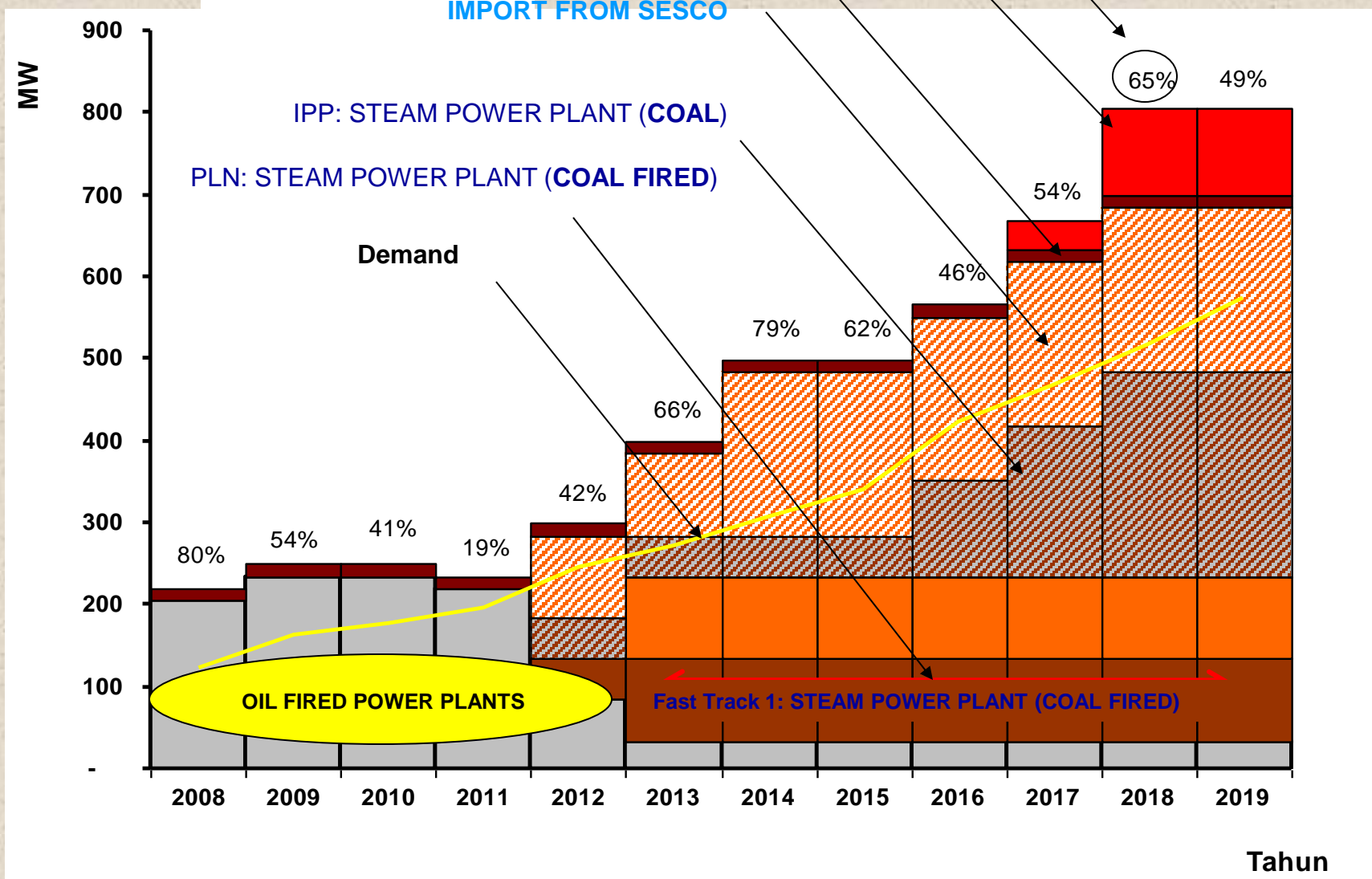
Supply-Demand
West Kalimantan, Indonesia

Without Interconnection

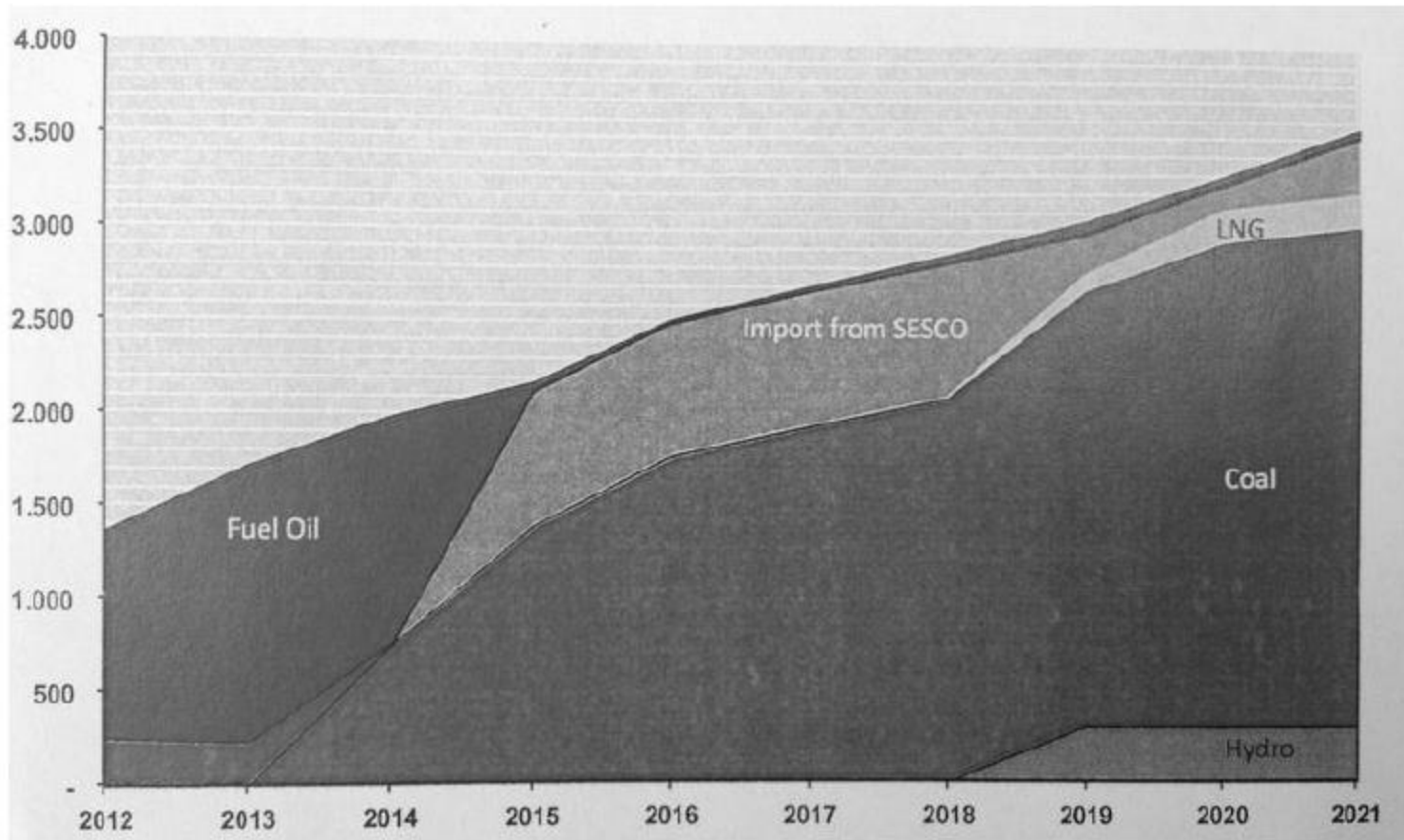


Supply-Demand
West Kalimantan, Indonesia

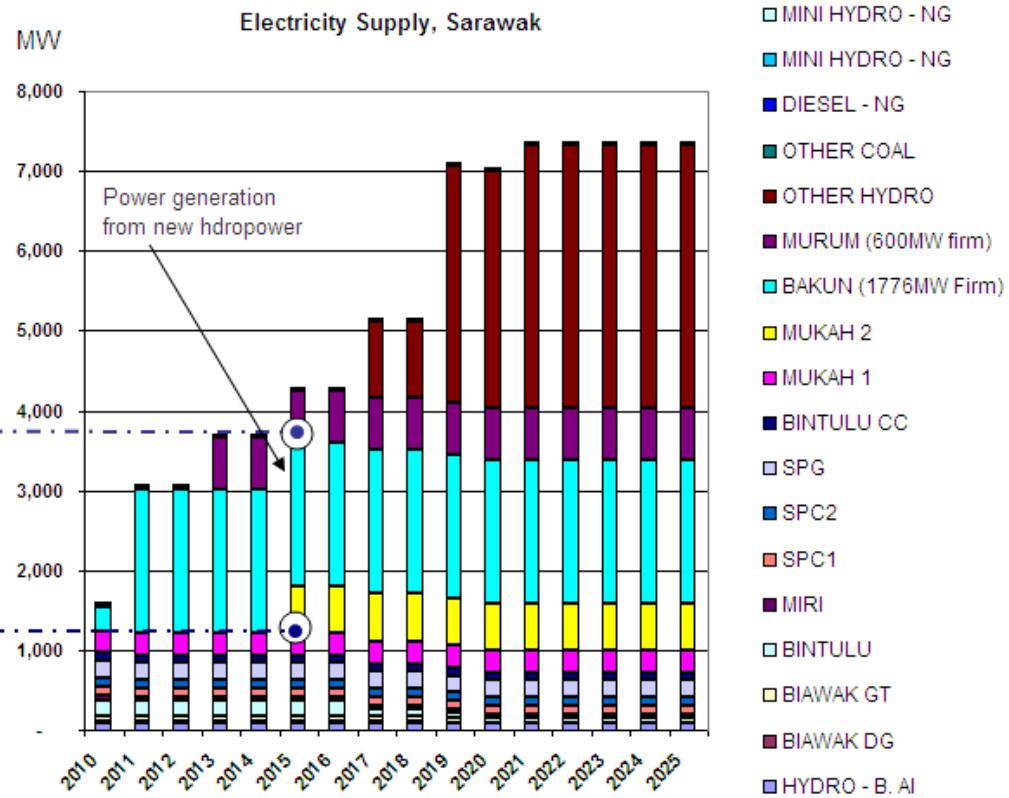
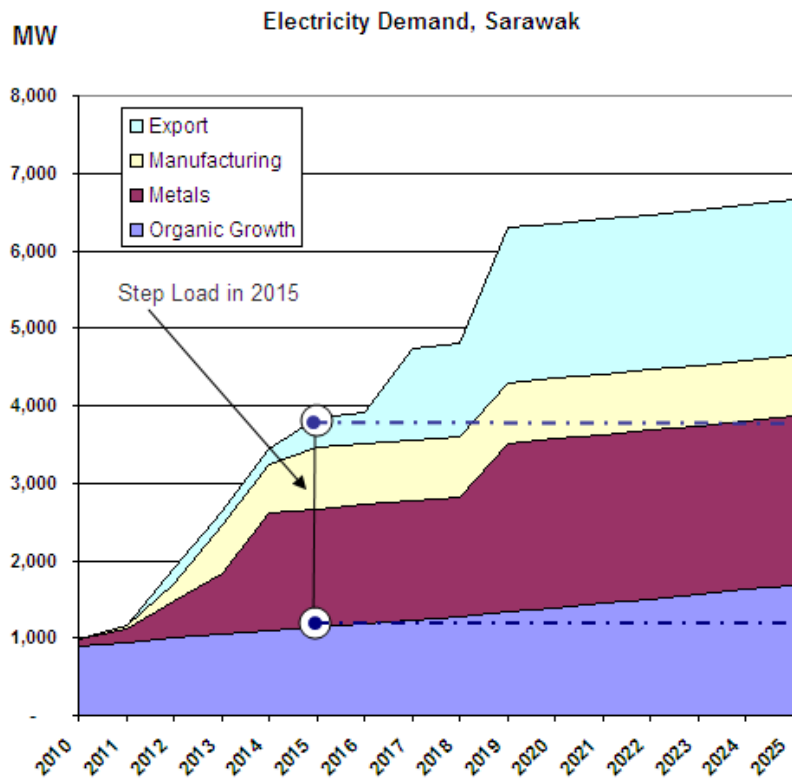
With Interconnection



Energy-mix (GWh) in West Kalimantan (with the project)



Supply and Demand (2010-2025) Sarawak Energy







**AMENDED AND RESTATED
POWER EXCHANGE AGREEMENT**

relating to the sale and purchase of electric power
and energy in the spirit of cooperation among the
Association of South East Asian Nations

between

SYARIKAT SESCO BERHAD

and

**PT PERUSAHAAN LISTRIK NEGARA
(PERSERO)**

dated as of 13 June 2013

**PERUBAHAN DAN PERNYATAAN
KEMBALI PERJANJIAN PERTUKARAN
DAYA LISTRIK**

terkait dengan jual beli daya dan energi listrik dalam
semangat kerjasama di antara negara-negara
anggota Perhimpunan Bangsa-bangsa Asia
Tenggara

antara

SYARIKAT SESCO BERHAD

dan

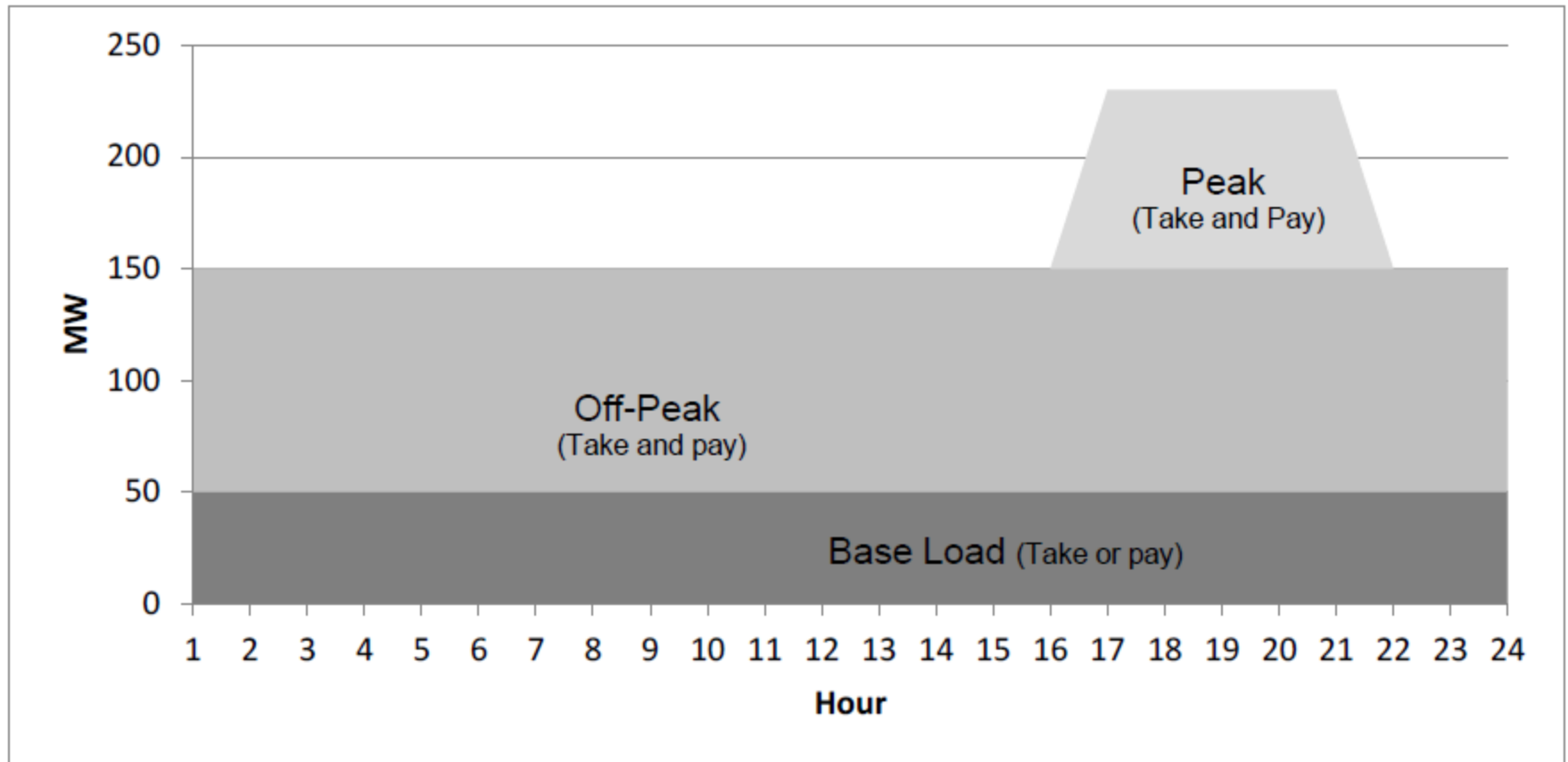
**PT PERUSAHAAN LISTRIK NEGARA
(PERSERO)**

tertanggal 13 Juni 2013



sarawak  energy
sesco

Power Exchange Agreement (Capacities, MW)



Milestones

- December 2007: ADB PPTA approved
- 2010: Draft Report of Consultant
- 2011: Loan Fact Finding
- 2012: Power Exchange Agreement Signed
- **August 2013:**
 - ADB approved sovereign loan for Indonesia
 - AFD approved sovereign loan for Indonesia
- **September 2013:** Contract Award (Indonesia)
- **November 2013:** Contract Award (Malaysia)
- November 2014: Non-Sovereign loan for Malaysia
(to be presented to ADB board)

ADB

Regional Technical Assistance Report

Project Number: 41074
November 2007

Efficiency Improvement and Connectivity
Strengthening in Archipelagic Southeast Asia Project
(Cofinanced by the Regional Cooperation and Integration Fund
under the Regional Cooperation and Integration Financing
Partnership Facility)

ADB

Report and Recommendation of the President
to the Board of Directors

Project Number: 41074
August 2013

Proposed Loan and Administration of Loan and Grant
Republic of Indonesia: West Kalimantan Power Grid

ADB

Report and Recommendation of the President
to the Board of Directors

Project Number: 44921
(to be presented to board in 2014)

Proposed Corporate Loan
Sarawak Energy Berhad
Trans Borneo Power Grid: Sarawak to West
Kalimantan Transmission Link Project
(Malaysia)



West Kalimantan side

201 towers



Work started in September 2013.

As of June 2014, completed:

87 foundations (43.3%)

63 towers (31.3%)

Stringing of conductors
commenced

Source: PLN

Sarawak Side: 144 towers

Current activities:

- Foundation work
- Erection tower work
- Stringing work

Overall Project Progress =87.3%

Project completion by Q1 2015.

Description of Works	Details of Completed Works	Remarks
Foundation Installation	● 87.5% completed (126 /144 towers)	● In the Progress
Tower Erection	● 70.8% completed (102/144 towers)	● In the Progress
Line Stringing	● 11.48% completed (5.362/46.7 km)	● In the Progress

Source: Sarawak Energy

(Foundation Work)



Overview of foundation work in the progress tower T14C/1 at kpg serikin



Overview of completed foundation work and backfilling in the progress at bau area kpg krokong

Source: Sarawak Energy

Site Progress Photograph (Stringing Work)



Overview of completed tower erection for section T12/1 to AT13 at Kpg Serikin



Overview of stringing in the progress for section T12/1 to AT14 at Kpg Padapan, serikin area



Hanging of running block and stringing pilot wire in the progress



Overview of completed stringing and clamping work

Completion in 2015!!

