The Market Sounding for
The High Speed Rail Linked 3 Airports Project
Fast Track for the Thai Future

21 MARCH 2018
Agenda

- Overview of High Speed Rail Linked 3 Airports Project
  - High Speed Rail
  - Makkasan Area Land Development
- PPP Option and Project Return
- RFP Document Preparation
- Q&A (Investors’ Opinions)
Project Scope

1. Existing ARL Suvarnabhumi-Phayathai
2. ARL Extension Phayathai-Don Mueang
3. High Speed Rail Bangkok-U-Tapao
4. Makkasan Area Land Development
5. Transit Oriented Development (TOD)

- **Urban Line**: Max 160 km/hr
  41 Min from Don Mueang to Suvarnabhumi
- **Inter-City Line**: Max 250 km/hr
  101 Min from Don Mueang to U-Tapao
- **New Depot** at Chacheongsao

Existing Airport Rail Link Suvarnabhumi - Phayathai that has been operated since 2010 by SRTET, subsidiary of SRT, has ridership around 60,000 people/day.
Project Overview on High Speed Rail

Ridership Forecast by Purpose

<table>
<thead>
<tr>
<th>Year</th>
<th>Business Purpose</th>
<th>Travelling Purpose</th>
<th>General Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>2023</td>
<td>25.6%</td>
<td>24.6%</td>
<td>49.8%</td>
</tr>
<tr>
<td>2043</td>
<td>24.2%</td>
<td>30.6%</td>
<td>45.2%</td>
</tr>
</tbody>
</table>

Daily Ridership Forecast (Airport Related) in 2023

<table>
<thead>
<tr>
<th></th>
<th>Don Mueang</th>
<th>Suvarnabhumi</th>
<th>U-Tapao</th>
<th>Others</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Don Mueang</td>
<td>-</td>
<td>2,008</td>
<td>456</td>
<td>11,567</td>
<td>14,031</td>
</tr>
<tr>
<td>Suvarnabhumi</td>
<td>1,962</td>
<td>-</td>
<td>319</td>
<td>14,998</td>
<td>17,279</td>
</tr>
<tr>
<td>U-Tapao</td>
<td>537</td>
<td>343</td>
<td>-</td>
<td>1,044</td>
<td>1,924</td>
</tr>
<tr>
<td>Others</td>
<td>10,595</td>
<td>14,272</td>
<td>973</td>
<td>-</td>
<td>25,840</td>
</tr>
<tr>
<td>Total</td>
<td>13,094</td>
<td>16,622</td>
<td>1,749</td>
<td>27,609</td>
<td>59,074</td>
</tr>
</tbody>
</table>

Passengers connected to 3 airports estimated to be 17% of total ridership (33,234 people/day)
## Output Specification and Level of Service

<table>
<thead>
<tr>
<th><strong>Output Specification</strong></th>
<th><strong>Level of Service</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Length of HSR</strong></td>
<td></td>
</tr>
<tr>
<td>Approximately 220 km</td>
<td></td>
</tr>
<tr>
<td><strong>Number of Stations</strong></td>
<td></td>
</tr>
<tr>
<td>15 Stations</td>
<td></td>
</tr>
<tr>
<td><strong>Maximum Design Speed</strong></td>
<td></td>
</tr>
<tr>
<td>Suvarnabhumi - U-Tapao: 280 km/hr</td>
<td>Suvarnabhumi - Don Mueang: same as current system</td>
</tr>
<tr>
<td><strong>Maximum Operation Speed</strong></td>
<td></td>
</tr>
<tr>
<td>Suvarnabhumi - U-Tapao: 250 km/hr</td>
<td>Don Mueang - Suvarnabhumi: 160 km/hr</td>
</tr>
<tr>
<td><strong>Operation Time</strong></td>
<td></td>
</tr>
<tr>
<td>HSR: 06:00-22:00</td>
<td></td>
</tr>
<tr>
<td>City Line: 05:00-23:30</td>
<td></td>
</tr>
<tr>
<td><strong>Trackwork</strong></td>
<td></td>
</tr>
<tr>
<td>Standard Gauge 1,435 mm</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Signaling System</strong></th>
<th><strong>Level of Service</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>ETCS / CTCS / Digital-ATC</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Customer Convenience</strong></th>
<th><strong>Level of Service</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>- Temperature controlled inside rolling stock</td>
<td></td>
</tr>
<tr>
<td>- Customer convenience when buying ticket and in-out station</td>
<td></td>
</tr>
</tbody>
</table>
### Project Overview of Land Development

**Around Makkasan Station**

- **Zone A**: 150 Rai : FAR 8:1
- ARL Makkasan: 27.48 Rai

**Rent**
- **Upfront Fees**: 3,009 Million THB
- **Rent during Construction**: 25%, 50%, 75% of 1st operation yearly rent for years 1-3
- **Rent during Operation**: 504 Million THB in 1st operation year
- **Rent Increase**: 10% every 3 years

**Around Si Racha Station**

- **Area**: 25 Rai

**Rent**
- **Upfront Fees**: 29 Million THB
- **Rent during Construction**: 25%, 50%, 75% of 1st operation yearly rent for years 1-3
- **Rent during Operation**: 5 Million THB in 1st operation year
- **Rent Increase**: 10% every 3 years
Agenda

• Overview of High Speed Rail Linked 3 Airports Project
  • High Speed Rail
  • Makkasan Area Land Development

• PPP Option and Project Return

• RFP Document Preparation

• Q&A (Investors’ Opinions)
Bidding Timeline

Year 2018

MAR’17 – FEB’18
SRT Study Project
Feasibility and PPP Option

FEB’18 – MAR’18
EEC and Cabinet
Approve Project

JAN’18 – MAR’18
SRT Prepare Bidding
Document

APR’18 – AUG’18
Sell Bids, Preparation
and Submission

SEP’18 – NOV’18
Tender Evaluation,
Negotiation

DEC’18
Government Approval and
Contract Signing

Completed
In Progress
Planned
## Public and Private Sectors: Function, Responsibilities and Project Period

<table>
<thead>
<tr>
<th>Design &amp; Construction</th>
<th>Operation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Period</td>
<td>5 years</td>
</tr>
<tr>
<td><strong>Railway</strong></td>
<td></td>
</tr>
</tbody>
</table>

### Responsibilities of Public Sector
- Land Acquisition and Hand Over
- Relevant Rights
- Civil Works (Other Project)
- Civil Works
- E&M
- Rolling Stock
- Operation and Maintenance
- Collect Revenue from Fare and Commercials

### Responsibilities of Private Sector
- Rail Operation Rights
- ARL Operation Rights
- Hand Over Land and Land Use Rights
- Land Development
- Public Utilities Development
- Operation and Maintenance
- Collect Revenue from the Development

### PPP Net Cost 50 Years

- **State will provide subsidies to support Private sector**
- **Private sector pay land rent to SRT**
### Estimated Project Capital Expenditures

#### Estimated Initial CAPEX

<table>
<thead>
<tr>
<th>Estimated Initial CAPEX</th>
<th>Total (MTHB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land Acquisition</td>
<td>3,570</td>
</tr>
<tr>
<td>Civil Works</td>
<td>120,515</td>
</tr>
<tr>
<td>E&amp;M</td>
<td>24,712</td>
</tr>
<tr>
<td>Rolling Stocks (Initial)</td>
<td>15,491</td>
</tr>
<tr>
<td>Others</td>
<td>4,430</td>
</tr>
<tr>
<td><strong>Total (Including Design)</strong></td>
<td><strong>168,718</strong></td>
</tr>
</tbody>
</table>

#### Estimated Initial CAPEX

<table>
<thead>
<tr>
<th>Estimated Initial CAPEX</th>
<th>Total (MTHB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Makkasan Area</td>
<td>40,193</td>
</tr>
<tr>
<td>TOD around HSR Station</td>
<td>3,513</td>
</tr>
<tr>
<td>Public Utility</td>
<td>1,449</td>
</tr>
<tr>
<td><strong>Total (Including Design)</strong></td>
<td><strong>45,155</strong></td>
</tr>
</tbody>
</table>

#### Estimated Initial CAPEX

<table>
<thead>
<tr>
<th>Estimated Initial CAPEX</th>
<th>Total (MTHB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Right to Operate Existing ARL</td>
<td>10,671</td>
</tr>
<tr>
<td>Existing ARL Civil Works</td>
<td>22,558</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>33,229</strong></td>
</tr>
</tbody>
</table>

#### Total

- Government ≈ 26,128 M THB
- PPP ≈ 220,974 M THB

### Breakdown

- **Land Acquisition**
- **Existing ARL Civil Works**
- **Civil Works**
- **E&M**
- **Rolling Stocks**
- **Project Management Consultant, ICE**
- **Right to Operate ARL**
- **Investment for Makkasan and Si Racha**

---

- High Speed Rail
- Makkasan Land Development
- Existing ARL Cost

---
### Project IRR (Private’s Perspective) 50 Years

<table>
<thead>
<tr>
<th></th>
<th>Rail Business</th>
<th>Land Development</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>NPV</td>
<td>$9,200</td>
<td>$30,100</td>
<td>$39,300</td>
</tr>
<tr>
<td>IRR</td>
<td>6.85%</td>
<td>10.77%</td>
<td>8.40%</td>
</tr>
<tr>
<td>B/C</td>
<td>1.06</td>
<td>1.35</td>
<td>1.18</td>
</tr>
</tbody>
</table>

**Noted:** Include 5 years’ ramp-up period. Only in-out cash, and not debt, taken into account.

Discount Rate: 6.06% for rail business and 6.55% for commercial business.

**Rail Business Images:** [Image 1], [Image 2]

**Land Development Images:** [Image 3], [Image 4]

**Total Images:** [Image 5], [Image 6]
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Tender Qualifications

- A single Juristic Person or Consortium (joint venture that isn’t registered as juristic person) or Joint Venture (joint venture that is registered as a juristic person).
- All Juristic Person members shall be registered for at least 3 years.
RFP Document Preparation (Cont’d)

Financial Qualifications

01 Net Worth
- Total Assets - Total Liabilities
- Average for the last 3 years
- Lead Firm’s Net Worth >= 45,000 Million THB
- Lead Firm’s Net Worth >= 25,000 Million THB
- and the combined Net Worth of the other Firm(s) (not over 2 firms) >= 20,000 Million THB
- The Firm(s) in the combined Net Worth must have at least 10,000 of its Net Worth

Or

02 Letter of Intent & Cash & Cash Equivalent
- Total >= 120,000 Million THB
- Letter of Intent >= 120,000 Million THB
- Cash & Cash Equivalent >= 120,000 Million THB
- Letter of Intent + Cash & Cash Equivalent >= 120,000 Million THB

1 Can combine for many banks
2 Cash & Cash Equivalent - only lead firm counted
3 After contract signed, financial close required within 180 days
Financial Qualifications

EPC Experience
Tenderer shall have experience in the areas of infrastructure designing, construction and E&M supply.

Operation and Maintenance Experience
Tenderer shall have at least 5 years’ experience in operation and maintenance services for high speed rail, with 250 km/hr operating speed.

Land Development Experience
Tenderer shall have experience in real estate development as an investor or developer, or design & construction, or real estate management project.

Tenderer’s sub-contractor’s or supplier’s experiences may be submitted to qualify the Tender Qualifications.
RFP Document Preparation (Cont’d)

- **RFP Fee**: Every Tenderer including all parties in the joint venture must pay 2 M THB each for the RFP fee.

- **Tender Evaluation Fee**: Every Tenderer must pay 2 M THB for an evaluation of the tender.

- **Contract Signing Fee**: Successful tenderer shall pay 2 M THB for Contract signing fee.

- **Contract Security**: Phase 1 Construction/Rolling Stock/E&M  12,000 M THB
  Phase 2 Operation & Maintenance and Land Development  4,000 M THB
## Evaluation Criteria

### Envelope 1: General Qualifications
- PASS/FAIL Evaluation for general qualifications

### Envelope 2: Technical Qualifications
- Scoring for technical qualifications. (Over 80 points required for a PASS)

### Envelope 3: Financial
- BOQs for civil works and E&M systems in relation to business and financial plans
- Business Plan, including target customers, marketing plan, operation plan, risk and risk mitigation
- Financial Plan, including financial model in excel files, financial assumption, detailed CAPEX and OPEX
- Schedule of Government support
- Schedule of Benefits Sharing to Government

The successful tenderer is the tenderer who provides the highest remuneration to SRT in term of Net Present Value (NPV).

Note: Envelope 3 will only be opened when Envelopes 1 and 2 got a PASS evaluation.
RFP Document Preparation (Cont’d)

**04** Envelope 4: Additional instructions for project improvement

The Tenderer may provide additional instructions for project improvement to increase ridership and others. And whether to open this envelope (only of the successful tenderer) or not is subject to SRT’s sole consideration.

**Successful Tenderer**

**Must register**

New Special Purposed Vehicles (SPV) before contract signing

Debt to Equity Ratio (D/E ratio) of not exceeding 3 during contract period (50 years), is required

- Ownership of Thai firms total > 51% of SPV
- Lead firm’s ownership requirement >= 30% of SPV
- Minimum other firms’ requirement >= 5% of SPV
- Paid-up capital before signing contract 4,000 Million THB
- Paid-up capital before HSR operation 36,000 Million THB
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Thank You
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