



AGENDA

**SRI LANKA SUBMARINE
INTERCONNECTION TASK FORCE
EXECUTIVE EXCHANGE VISIT OF THE
BASSLINK INTERCONNECTION
(BETWEEN THE AUSTRALIAN MAINLAND
AND NORTHERN TASMANIA)**

May 5 – 9, 2008

Melbourne & Launceston, Australia

**Conducted by the
U.S. ENERGY ASSOCIATION
Under the
SOUTH ASIA REGIONAL INITIATIVE FOR ENERGY (SARI/ENERGY)
Funded by the
U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT**

DRAFT AGENDA FOR EXECUTIVE EXCHANGE

GOAL: The Executive Exchange is designed to examine the policy, technical, institutional, economic and financial requirements involved in the creation of the Basslink 500 MW HVDC submarine link crossing the Australian Bass Strait, connecting the Victorian transmission system at the Loy Yang substation on the Australian mainland to the Tasmanian transmission system at the George Town substation in northern Tasmania. During the visit, participants will have the opportunity to meet with operators, regulatory bodies, and policy makers and discuss the history, technical, legal and regulatory issues, and operations involved in the link.

The company that owns and operates the link is Basslink Pty Ltd, which itself is owned by CitySpring Infrastructure Trust. Basslink is a monopolar HVDC operating at a nominal voltage of 400 kV DC. The nominal rating of the link is 500 MW although it is capable of transmitting 630 MW from George Town to Loy Yang for up to 6 hours. The cable has a 290 km undersea section.

OBJECTIVES:

Issues to be examined during the executive visit include the installation of the line, the structure and procedures of the transmission system operator, and the policy development and regulatory oversight of the cross-border connection.

This exchange will lead to an improved understanding of the processes involved in forming a submarine interconnection and provide application to the planned interconnection between India and Sri Lanka.

- Learn about & obtain documentation on policy initiatives behind the establishment of the Basslink including the political, technical and social drivers of the initiative
- Learn about & obtain documentation on the history and the sequence of activities relating to the establishment of the Basslink
- Learn about & obtain documentation on the technical issues relating to the planning and designing the link
- Learn about & obtain documentation on the legal and regulatory issues relating to operation of the link
- Learn about & obtain documentation on Power Purchase Agreements with regard to tariff, quantum of power transferable etc.
- Learn about & obtain documentation on the technical operation of the link

OUTCOMES:

- Knowledge & documentation on policy initiatives behind the establishment of an electricity link , including relevant political, technical and social drivers of the initiative
- Knowledge & documentation on the history & sequence of activities relating to the establishment
- Knowledge & documentation on the technical issues relating to the planning and design of the link
- Knowledge & documentation on the legal and regulatory issues relating to the operating of the link
- Knowledge & documentation on the Power Purchase Agreements with regard to tariff, quantum of power transferable, etc.
- Knowledge & documentation on the operations of the link

Executive Exchange Participants

Sri Lanka

Mr. M.M.C. Ferdinando
Co-Chairman Steering Committee
Secretary, Ministry of Power and Energy
Email: secrepe@sltnet.lk

Mr. D.R. Pullaperuma
Member, Steering Committee
General Manager, Ceylon Electricity Board
Email: gm@ceb.lk

Mr. Ranjith Gunawardana
Member, Task Force
Additional General Manager (Transmission)
Ceylon Electricity Board
Email: agmtr@ceb.lk

Ms. J.A.K. Jayasekera
Member, Task force
Chief Engineer, Transmission Planning
Ceylon Electricity Board
Email: cetp@ceb.lk

Mr. Damitha Kumarasinghe
Deputy Director General
Public Utilities Commission
Email: damitha@pucsl.gov.lk

U.S. Agency for International Development

Mr. Srinivasan "Padu" Padmanaban
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Mr. Upali Daranagama
Project Management Specialist, Energy
USAID/India
Email: udaranagama@usaid.gov

U.S. Energy Association

Ms. Sarah Blanford
Senior Program Coordinator
South Asia Regional Initiative for Energy
Program
U.S. Energy Association
Email: sblanford@usea.org

SUNDAY, MAY 4, 2008

6:10 am Delegates arrive into Melbourne. Singapore Airlines (SQ) 227, Terminal 2

Transportation Company:

Melbourne Chauffeur (Graham - Phone: 61 3 9016 3736, 0417568827, 0419308566;
justit@justitours.com.au)

Lodging:

Radisson at Flagstaff Gardens
380 William Street
Melbourne VIC 3000
www.radisson.com/melbourneau
Phone: +61 3 9322 8148; Fax: +61 9322 8888
(Breakfast included.)

DAY 1: MONDAY, MAY 5, 2008

8:15 am Depart hotel & drive to Latrobe Valley (approximately 2 ½ hours drive)

**11:00 am Site Visit to Basslink Loy Yang Converter Station –
Latrobe Valley, Victoria**

Contact: Mark Shilliday, Site Manager (mark.shilliday@basslink.com.au, 61-0-3-9607-4700)

CitySpring Infrastructure Management Pte. Ltd., trustee-manager of CitySpring Infrastructure Trust purchased Basslink in August 2007. Basslink is a 370km high-voltage, direct current electricity interconnector between the States of Victoria and Tasmania in Australia. As the world's longest sub-sea electricity cable, Basslink was constructed to allow Tasmania to join the Australian National Electricity Market, exporting Tasmanian hydro-generated power at times of peak prices in Victoria and importing Victorian base-load during off-peak periods. Since commercial operations began in April 2006, Basslink has achieved an average availability of 99.5%.

Discussion Topics:

- Overview of Basslink
- History & sequence of activities leading up to the establishment of the connection
- Organization, governance and enabling policies
- System supply, demand and transmission constraints
- Operational guidelines

Loy Yang Power owns and operates the 2,200 megawatt Loy Yang power station and the adjacent Loy Yang coal mine. The company supplies approximately one third of the state of Victoria's power requirements or 10 per cent of total generation for the south-eastern seaboard states of New South Wales, Queensland, South Australia and the Australian Capital Territory.

The Loy Yang power station is the largest in Victoria and the open cut is the largest producing brown coal mine in the southern hemisphere.

Lunch – provided by Basslink

**3:00 pm Site Visit to Power Works Energy Technology Centre –
Latrobe Valley, Victoria**

Contact: Ian Southall, General Manager (ian@powerworks.com.au; 03-5135-3415)

5:00 pm Departure for Melbourne

7:00 pm Approximate arrival time in Melbourne

Evening – Group Dinner

DAY 2: TUESDAY, MAY 6, 2008

8:30 am Meet in lobby & walk to meeting (approximately ½ mile walk)

9:00 – 11:00 am Meeting with NEMMCO – Melbourne

Location: Level 12, 15 William Street, Melbourne

Speaker: Sandra Fitzpatrick, Communications Specialist (Sandra.Fitzpatrick@nemmco.com.au; 03-9648-8777)

Contact: Alethia Stephens, National Office Administrator
(Tel: (03) 9648 8716; Alethia_Stephens@nemmco.com.au)

NEMMCO, the market operator of the National Electricity Market (NEM) and the system operator of the national grid, was established in May 1996 to implement, administer and operate the wholesale NEM, continually improve its efficiency and manage the security of the power system. A key responsibility is to ensure the reliability and security of the power system linking five states of Australia – Queensland, New South Wales (including the ACT), Victoria, South Australia and Tasmania. The power system stretches more than 4000 km and is one of the longest interconnected high voltage grids in the world.

In 2006-07, approximately 195,000 gigawatts of electricity – valued at more than \$11.6 billion – was traded in the NEM. This was required to meet the needs of around 18 million people living and working in around 8 million households and businesses

Discussion Topics:

- Overview of the Australian electricity market & market operations
- Settlement procedures, ancillary services, dispatch & pricing mechanisms, access rules
- Power purchase agreements
- Handling of transmission congestion

12:45 pm Check-out of hotel & depart for airport

3:10 pm Departing Melbourne for Launceston – Virgin Blue (DJ #606)

4:15 pm Arrival into Launceston

Transportation: McDermott’s Coaches (contact Eileen Murfet 03-6394-3535)

Tasmania Hydro Point of Contact: Tahnee Townsend (M: 0409505275)

Lodging: Tasmania Country Club

DAY 2: WEDNESDAY, MAY 7, 2008

8:45 am Depart hotel, escorted by Hydro Tasmania

9:45 am Site Visit to Basslink Tasmania SubStation and DC/AC converter station – George Town

Guide/Speakers: Joska Ferencz, Site Manager (joska.ferencz@basslink.com.au, 03-638-28318, M: 0419-445-405) and Greg Mather

12:00 pm Depart George Town

12:30 pm – Meeting with Hydro Tasmania – location Power Station at Trevallyn

Speaker: James Pirie, Manager Trading Services, Trading (james.pirie@hydro.com.au; 03-6230-5517)

Other speakers: Steve Halliday, Group Manager, Commercial (03-6230-5316, Steven.Halliday@hydro.com.au); Rachel Steven, Program Leader, Policy & Regulatory Analysis, Communications & External Relations (61-03-6230-5471; Rachel.steven@hydro.com.au); Donald Vaughn; Ranjith Perera

Hydro Tasmania is Australia’s leading renewable energy business contributing 50% of Australia’s electricity produced from renewable energy sources. Hydro Tasmania’s total generating capacity is

2615 MW and the assets are worth about \$3.4 billion with a 100-year history in power engineering and dam construction that provided their unique hydro-electric scheme, the basis of their renewable energy business and expertise. Hydro Tasmania has renewable energy generation projects in wind farms and mini-hydro and enhances their assets with a program of upgrades and maintenance, designed to sustain our business for future generations. In addition Hydro Tasmania owns the King Island Huxley Hill Wind Farm and two diesel power stations on King and Flinders Islands in Bass Strait, along with further wind farm interests in Tasmania, South Australia and Asia as joint owner of Roaring 40s Pty Ltd with CLP Power Asia Limited. Hydro Tasmania is a Government Business Enterprise, owned by the State of Tasmania.

Discussion Topics:

- Overview of Hydro Tasmania operations & applications to the Basslink
- Outline of business drivers & commercial case for the Basslink
- Overview of regulatory arrangements and market structure
- Overview of technical aspects and issues
- Overview of the assessment process

3:30 pm **Tour of Trevallyn Power Station** (owned by Hydro Tasmania)

7:30 pm – **Meet in hotel lobby for short walk to restaurant - USEA Hosted Dinner with Hydro Tasmania staff in Launceston at JJ's Dockside Restaurant**

DAY 4: THURSDAY, MAY 8, 2008

8:15 am **Check-out of hotel & depart**

9:30 am – **Site Visit to Poatina Power Station**

The Poatina Power Station is an underground hydropower station whose operations have changed significantly as a result of the construction of Basslink. There are also specific project assessment issues with the operations of this power station, and some innovative approaches to their mitigation.

12:30 – 2:30 pm **Drive from Poatina to Hobart**

Lodging: Salamanca Inn

10 Gladstone Street Hobart

Ph +61 3 6223 3300

www.salamancainn.com.au

info@salamancainn.com.au

(Breakfast included for sponsored delegates only.)

6:30 pm **Dinner Hosted by Hydro Tasmania (Vanidol's Asian Cuisine)**

Hydro Tasmania staff:

Mike Brewster, General Manager, Hydro Tasmania Consulting

Ross Burridge, Manager Strategic Policy

Alex Beckitt, Manager Strategic Policy

Damien Vermay, Managing Consultant

Peter Greilach, Specialist Environmental Scientist

Adam Gellie, Regional Manager Consulting

Rachel Steven, Program Leader, Policy & Regulatory

James Pirie, Manager Trading Services

Donald Vaughan, Principal Consultant

DAY 5: FRIDAY, MAY 9, 2008

8:45 am **Depart for Hydro Tasmania offices** (walking distance from hotel)

9:00 am **Meeting with Hydro Tasmania – Hobart**

- Welcome – provided by Hydro Tasmania CEO Vince Hawksworth
- Presentation by delegation on the Sri Lanka – India submarine interconnection project
Speaker: Ms. J.A.K. Jayasekera, Member, Task force, Chief Engineer, Transmission Planning, Ceylon Electricity Board & Mr. D.R. Pullaperuma, Member, Steering Committee, General Manager, Ceylon Electricity Board
- Hydro Tasmania presentation on operational aspects of the Basslink cable
- Tour of Hydro Tasmania Hands On Discover Centre
Guide: Sue Fama
- Tour of Hydro Tasmania system operations and trading area

11:00 am **Depart for Cambridge**

11:30 am **Meeting with Hydro Tasmania Consulting – Cambridge**

Speakers: Adam Gellie, Regional Manager Victoria, Market Development (61-03-8628-9723; adam.gellie@hydro.com.au)

Damian Vermey, Managing Consultant, Power Engineering (61-03-6230-5898; damian.vermey@hydro.com.au)

Peter Greilach, Specialist Consultant, Sustainable Resources & Energy (61-03-8628-9714; peter.greilach@hydro.com.au)

Brian Giles, Group Manager, Power Engineering (61-3-6230-5449; brian.giles@hydro.com.au)

12:30 pm Lunch hosted by Hydro Tasmania Consulting Group

3:00 – 4:00 pm **Conference call with Australian Energy Regulator (AER)**

POC: Helen Ritson (0392901422)

Speakers: Michelle Groves, CEO & Sebastian Roberts, General Manager, Markets Branch

4:00 pm Adjourn

SATURDAY, MAY 10, 2008

6:20 pm **Delegates depart from Hobart.** Qantas Airways (QF) 5710, Terminal 1